Course and outcome of patients with Alcohol dependence syndrome following community de-addiction treatment and a hospital based de-addiction treatment -a comparative study

Submitted

BY

Dr.Shyam R.P.S

Dissertation submitted to

THE TAMILNADU DR.M.G.R. MEDICAL UNIVERSITY, CHENNAI,

In partial fulfillment of the requirements for the degree of

DOCTOR OF MEDICINE IN PSYCHIATRY

Under the guidance of

Professor & Head

Dr.Raghuthaman.G

DEPARTMENT OF PSYCHIATRY,

PSG INSTITUTE OF MEDICAL SCIENCES AND RESEARCH

COIMBATORE – 2015

Declaration By The Candidate

I hereby declare that this dissertation entitled **"Course and outcome of patients with Alcohol dependence syndrome following community de-addiction treatment and a hospital based de-addiction treatment -a comparative study"** is a bonafide and genuine research work done by me under the guidance of Dr. G.Raghuthaman, Prof and Head, Department of Psychiatry, PSGIMS & R, Coimbatore.

Place: Coimbatore **Dr.Shyam RPS**

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Certificate By The Guide

This is to certify that this dissertation entitled **"Course and outcome of patients with Alcohol dependence syndrome following community de-addiction treatment and a hospital based de-addiction treatment -a comparative study"** is a bonafide work done by **Dr.Shyam R.P.S** in partial fulfillment of the requirement for the degree of M.D (Psychiatry)

Place: Coimbatore

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Endorsement By The HOD/Principal Of The Institution

This is to certify that this dissertation **"Course and outcome of patients with Alcohol dependence syndrome following community de-addiction treatment and a hospital based de-addiction treatment -a comparative study"**is a bonafide research work done by **Dr.Shyam R.P.S** under the guidance of **Dr. G. Raghuthaman**, Professor & Head, Department of Psychiatry, PSGIMS&R, Coimbatore.

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Acknowledgement

It is indeed a great pleasure to recall the people who have helped me in completing my dissertation. Naming all the people who have helped me in achieving this goal would be impossible, yet I attempt to thank a selected few who have helped me in diverse ways.

I acknowledge and express my humble gratitude and sincere thanks to my beloved teacher and guide **Dr. G. Raghuthaman,** M.D (Psychiatry), Professor & Head, Department of Psychiatry, PSGIMS&R, Coimbatore for his valuable suggestions and guidance, and his attention to detail, that he has so willingly shown in the preparation of this dissertation.

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Finally, I would like to thank my patients who formed the backbone of this study, without whom this study would have not been possible.

Place: Coimbatore **Dr.Shyam R.P.S**

Date:

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Institutional Human Ethics Committee

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March 3, 2014

To
Dr R P S Shyam
Postgraduate
Department of Psychiatry
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Coimbatore

The Institutional Human Ethics Committee, PSG IMS & R, Coimbatore -4, has reviewed your proposal on February 28, 2014 in its expedited review meeting held at IHEC Secretariat, PSG IMS&R, between 10.00 am and 11.00 am, and discussed your study proposal entitled:

"Course and outcome of patients with alcohol dependence syndrome following community de-addiction treatment - a prospective cohort study"

The following documents were received for review:

1. Duly filled application form
2. Proposal
3. Informed Consent Forms
4. Data collection tool
5. Permission letter from the concerned Head of Department
6. CV
7. Budget

After due consideration, the Committee has decided to approve the study.

The members who attended the meeting at which your study proposal was discussed are as follows:

Name	Qualification	Responsibility in IHEC	Gender	Affiliation to the Institution Yes/No	Present at the meeting Yes/No
Dr P Sathyan	DO, DNB	Clinician, Chairperson	Male	No	Yes
Dr S Bhuvaneshwari	M.D	Clinical Pharmacologist Member - Secretary	Female	Yes	Yes
Dr Y S Sivan	Ph D	Member –Social Scientist	Male	Yes	Yes
Dr D Vijaya	Ph D	Member – Basic Scientist	Female	Yes	Yes

The approval is valid for one year.

We request you to intimate the date of initiation of the study to IHEC, PSG IMS&R and also, after completion of the project, please submit completion report to IHEC.

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This Ethics Committee is organized and operates according to Good Clinical Practice and Schedule Y requirements.

Non-adherence to the Standard Operating Procedures (SOP) of the Institutional Human Ethics Committee (IHEC) and national and international ethical guidelines shall result in withdrawal of approval (suspension or termination of the study). SOP will be revised from time to time and revisions are applicable prospectively to ongoing studies approved prior to such revisions.

Kindly note this approval is subject to ratification in the forthcoming full board review meeting of the IHEC.

Yours truly,

Dr S Bhuvaneshwari
Member - Secretary
Institutional Human Ethics Committee

SECRETARY
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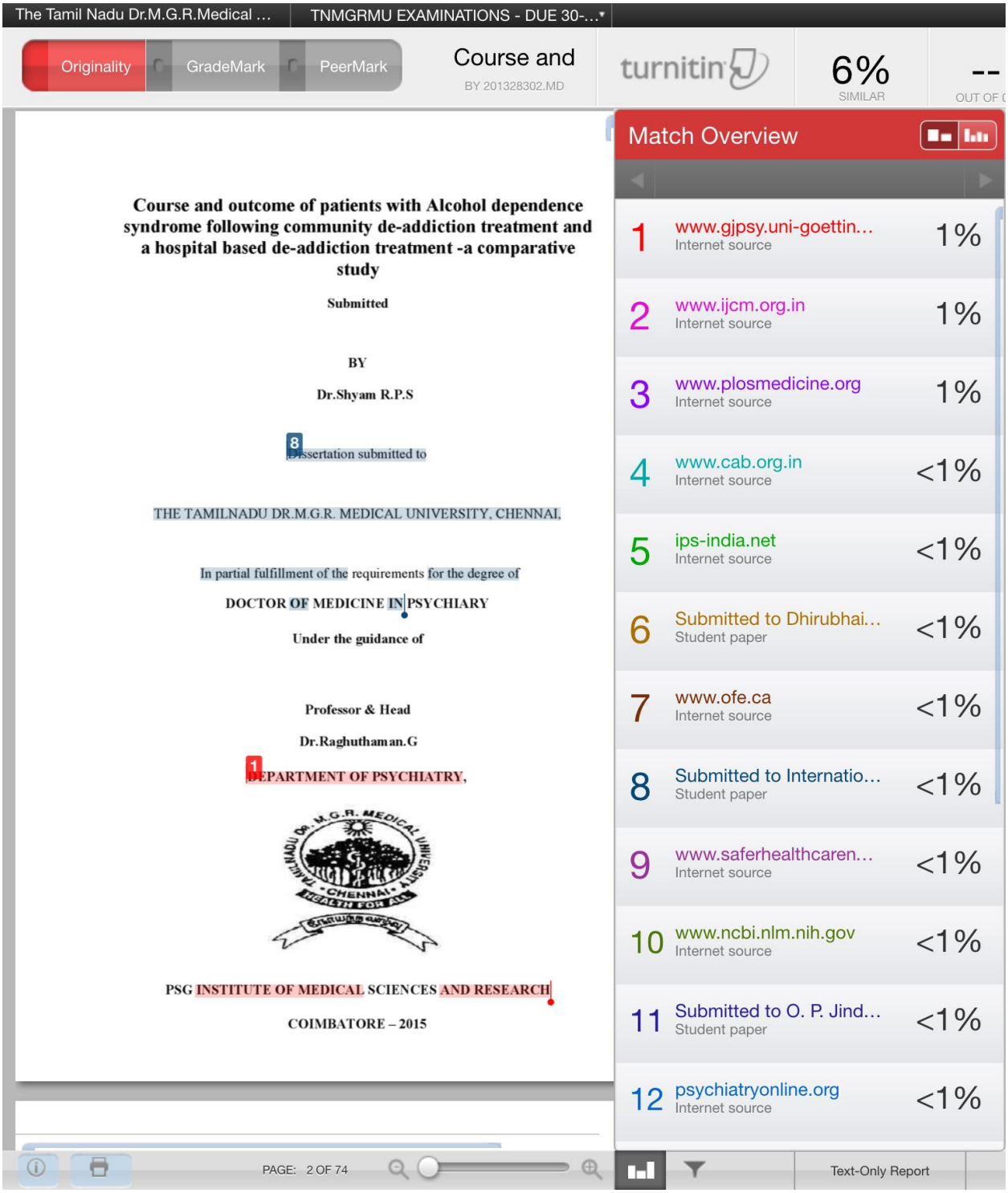
INSTITUTIONAL HUMAN ETHICS COMMITTEE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Abstract:

Course and outcome of patients with Alcohol dependence syndrome following community de-addiction treatment and a hospital based de-addiction treatment -a comparative study

Background:

Alcohol is causally related to over 200 illnesses, and also imposes a huge economic burden on the country with absenteeism, and decreased productivity. Recently there has been a dramatic increase in alcohol consumption in India, with over 62.5 million users and 10.6million being dependant users. In India we have hospital based de addiction, in tertiary care hospitals as the main modality of treatment for this, but outcomes are not promising., and not many community based studies have been done.

Aims:

1. To compare the effectiveness of a community based de-addiction treatment with traditional traditional hospital based de-addiction offered at a psychiatric in-patient facility in a tertiary care centre.

Methodology:

Patients were given de-addiction treatment at Vedapatti RHC and followed up and the outcomes studied for 6 months. The outcomes were compared with patients who underwent de addiction treatment in the department of psychiatry at the medical college. Primary outcome measures were abstinent rates at the end of 6 months. The secondary

outcome measure included drug compliance, duration of follow up, number of group visits and drinking percentage.

Results:

The socodemographic variables of the two samples were mostly comparable. The abstinent rates(=abstinent and = occasional lapses) at the end of 6 months were for the community sample was 84% vs 50% for the hospital sample, which was statistically significant**(p=0.017).** The community sample had longer duration of follow up, better drug compliance. The drinking percentage also showed significant reduction compared to baseline in both the groups

Conclusion:

This study shows promise in some areas, further research is needed so that it can serve as a new model for delivering de-addiction services.

Introduction:

Alcohol is one of the most commonly abused substances available legally. Alcohol use is responsible for various dire consequences both at the individual level and at the community level. Alcohol is causally associated with over 200 injuries and diseases. It leads to various behavioural problems and mental illnesses. It has been found to be causal in a number of non-communicable diseases such as CNS disorders, liver disease, certain cancers, GI problems etc. In 2012, 5.1% of the global disease burden and 3.3 million deaths were due to alcohol related problems. In the20-39 age group, it is estimated alcohol may contribute to 25% of deaths either directly or indirectly (1).

Apart from health problems, alcohol use also is a hindrance to the socioeconomic growth of the country, contributing to days of work lost, and decreased productivity. Industry association sources estimate that 15% to 20% of absenteeism and 40% of accidents at work are alcohol related (2). The annual loss due to alcohol related problems at the work place is estimated to be between70 000 to 80 000 million rupees.(3) There are also a lot of intangibles when it comes to alcohol related problems, as there are no effective means to measure the psychosocial impairment caused by alcohol. Domestic violence and an exacerbation of poverty secondary to alcohol have made alcohol abuse the single most important problem for women in India (4).

India has historically been considered as a relatively dry country, with low rates of alcohol use and abuse. It has been suggested that it could be because of two reasons:

- under reporting of alcohol use
- popularity of illicit country liquor, the sales of which are unregulated

Recently there has been a dramatic increase in the rates of alcohol consumption. In India the estimated numbers of alcohol users in 2005 were 62.5 million, with 17.4% of them (10.6million) being dependant (5). Though the burden of alcohol on the individual and community has been recognized, we are far from finding an effective means to tackle this debilitating problem. A number of measures have been proposed by the WHO APDSS group such as levying taxes, banning advertisements, restricting sales, brief physician intervention etc. The WHO expert Committee on Alcohol considers early intervention and treatment for people with alcohol use disorders fulfilling three goals:

- as a humanitarian approach to alleviate human suffering;
- reducing alcohol consumption
- and as a way of reducing alcohol related healthcare costs. (6)

Treating alcohol dependence is a challenging task and requires a multimodal approach including psychological and pharmacological methods. There is a wide treatment gap when it comes to alcohol use disorders in our country. There could be many reasons for the same:

- lack of knowledge about the availability of services
- accessibility issues as most de-addiction services are currently being offered in tertiary care centres in urban areas
- affordability

- stigma associated with seeking treatment in a psychiatric setting

- also research suggests that another major reason is that individuals with alcohol related disorders do not perceive a need for treatment. (7-9)

Also conventional treatment via hospital based de-addiction given in tertiary care centres offer only modest results ranging from 32.5% to 47.5% (17,18) .The low demand for these services, the perceived economic "benefits" from alcohol-taxes, fuels official apathy towards upgrading services in the treatment of this condition(32).

Because of the poor outcome of severe alcohol dependence with conventional treatments, some health care professionals believe there is little point in trying to treat these patients. These factors also contribute to the large treatment gap. Hence there is an urgent need to not only sensitise health care professionals on the problems associated with alcohol use , but also to come up with alternate methods to treat the condition which are economically feasible and culturally acceptable.

Treating patients with alcohol dependence in the community setting at a primary health care level is a potential solution to this growing problem that does away with some of the major obstacles to treatment as it will be more accessible, affordable, and not be associated with the stigma of being admitted in a psychiatric setting. We believe this could bring down the wide treatment gap (78%)(17) that exists in substance use disorders.

Rationale of the study:

Community de-addiction studies have been done in various parts of the country and have shown some promise. However they have been few and far between. Also in some studies, the sample was not homogenous and included patients with other substance use disorders(10) and in others the outcomes were not rigorously defined (14). And there are no head to head studies that compare hospital based de-addiction with community based de-addiction.

Review of literature:

In the last couple of decades we have made great strides in understanding alcohol use disorders- the pathological effects of heavy drinking, its probable course, contributing factors both psychological and psychosocial, and about the neurobiology of addiction. This has led to the development of multiple treatment options to tackle this problem- both psychological and pharmacological, however there is lack of general consensus on the best treatment modality to tackle this problem.

Initial research in substance use disorders focussed on the setting of the de-addiction treatment, and compared the effectiveness of inpatient and out-patient de-addiction treatments.

Project MATCH (26) was a randomized control trial done to compare the outcomes of out-patient and in-patient de-addiction. It was large scale study which included 952 patients in the out -patient arm and 774 patients in the in-patient arm. The patients were followed up for a year and the outcomes- percentage of days abstinent and the number of drinks on a drinking day in the 1 year following initial contact were analyzed. The results showed there was no difference in the two groups at the end of 1 year in these two outcomes.

Finney et al (21) published a review showing better outcomes with in-patient treatment for substance use disorders.

In recent times, there has been a need to compare the components of treatment and also the different settings in which in-patient treatment can be given for substance use disorders.

Outcome studies have been done to see the effectiveness of de-addiction treatment being offered in tertiary care centres in the Indian setting.

Abraham et al (1997) (19) did a one year prospective study at JIPMER, Pondicherry to study the effectiveness of their de-addiction program. They recruited 60 patients with alcohol dependence admitted in the psychiatric ward for de-addiction treatment, which included detoxification, group sessions and deterrent therapy with Disulfiram. They were advised to follow up every two weeks after discharge. They were followed up for a year and the outcomes were analyzed. Mean age of the sample was 39.6 years. 54.5 % of the sample had a positive family history of alcohol use.

Out of the 60 subjects, only 9 patients were following up at the end of the year. Half the patients had followed up for less than 3 months and 10 patients had followed up for periods ranging from 3-6 months. The rest had lost follow up within a month. At the end of one year, one third were abstinent; one third continued to drink but had reduced drinking compared to baseline and the rest continued to have unimproved drinking pattern.

Chandrasekaran et al (18), 2001 did a retrospective study at JIPMER, Pondicherry to find out follow up rates of patients who underwent alcohol de-addiction. They studied 800 patients with alcohol dependence who were treated over a five year period. Mean age of the subjects was 39.7 years (±8.66). The sample had moderate severity of alcohol dependence with a mean SADQ score of 23.95.

Of the 800 patients, only 28 patients (4.6%) had followed up at least for an year; 48 patients (7.9%) had followed up for 6-12 months and; 152 patients (25.1%) had followed up

for 1-6 months. Their drop-out rate within a month was as much as 62.4%, which is very high compared to other contemporary Indian studies. (17,19)

Kar et al (19), 2003 carried out a one year prospective study in Kasturba Medical College, Manipal to look for any predictors of outcome in patients with alcohol dependence. They recruited 60 patients who fulfilled the criteria for alcohol dependence according to ICD-10, admitted for de-addiction treatment- which includes detoxification, psychoeducation, aversion therapy, group therapy, with or without disulfiram medication. Mean age of their sample was 42.86 years. Age of onset of regular drinking was 30.85 years. A majority (92%) of the patients were prescribed disulfiram at the time of discharge and they were followed up for a year.

At the end of one year 28 patients (46.7%) were abstinent. Five patients (8.3%) were drinking occasionally and 21 patients were having >50% drinking days. They had a drop-out rate of 10%. Greater age of onset of problem drinking, lower psychosocial problems were found to be predictors of abstinence.

These figures suggest wide variability in response rates at different centres and also a significant proportion of patients go back to pathological drinking following discharge.

Chand et al (15) did an audit in NIMHANS encompassing 2735 patients who had attended the de-addiction clinic in 1 year. Of this 464 had fulfilled criteria for alcohol dependence according to ICD 10. Mean age at the time of seeking treatment was 38.1 (SD = 9.91years). On average, a person took twelve years (12.4 ± 7.8) between the possible development of dependence and first consultation. A history of withdrawal seizure was present among 46 (10%) patients. Family history of alcohol use disorder *i.e*. likely dependence was present in 215 (46%). About half (251, 54%) the patients received long term medications for relapse prevention.

During the one year follow up period, 50 % of the patients had not come for follow up following the initial assessment. Thirty percent of the patients had only one follow up after the initial assessment. Fourteen percent and 5.4% percent of the patients came for at least two and three follow up visits respectively. They had not collected any information on the patient who did not come for follow up visits.

It was observed that those who had a minimum of three follow ups were doing significantly better ($P<0.001$) (abstinent or reduced drinking) than those who had never reported for follow up. About 60 % of patients who visited at least once in the year had either remained abstinent or had reduced drinking. The study also showed that for a majority of the patients this was index contact at a health care setting for alcohol use and also that there was significant time lag between the onset of dependence and seeking of help.

They concluded that the role of the primary care physician in early identification of dependence is of paramount importance and will reduce the delay in seeking help and possibly prevent the development of addiction which is chronic and needs specialized care. There is long duration between the development of dependence and the patient seeking help from a mental health care facility. It is during this window that primary health care physicians can effectively intervene. There is a need to train primary care doctors to identify and manage alcohol use disorders.

Murthy.P et al (16) studied the effect of continued care in patients with alcohol dependence. Two groups of patients were recruited from the slums of Bengaluru and they underwent the same de-addiction treatment. **The study group also received weekly continued care in the community, either at a clinic located within the slum or through home visits.** The control group was given routine hospital follow-up visits. Both groups were evaluated using standard questionnaires about their drinking pattern, at baseline 3rd, 6th, 9th and 12th months.

Both groups had improved and had reduced number of drinking days at 3 months compared to baseline, which was not statistically significant (64% vs 50%). However, at the end of 6,9 and 12 months, the study group had continued to maintain the improvement but the control group showed a detiorating course which was statistically significant(53% vs 28% at the end of 12 months).

They had concluded that continued care seemed to significantly improve long term outcomes in patients with alcohol dependence.

Humphreys et al (27) wanted to study the effect of using community and social resources and outcomes of alcohol dependence. They had recruited 628 patients with alcohol dependence who were never treated-from detoxification units, alcoholism information and referral services. 395 (68.2%) patients were followed up at 3 years and 8 years later. The results showed that the duration of in-patient stay in the first 3 years did not predict better outcomes at 8 years, however more the number of out-patient visits in the initial 3 years had predicted better outcomes at 8 years viz lesser drinking rates

They concluded that for a chronic disease like alcohol dependence, any short term intervention was unlikely to produce any impact on long term outcomes, and also social and community resources which are available for a long term will produce good outcomes in these patients.

Treating patients on a camp basis started in India in the 1970s and the 1980s. It has worked well for treating ophthalmological conditions, offering sterilisation procedures and in implementing immunization programs.

The first paper on camp based services for substance use disorders was published in 1988 by Purohit and Razdan, who had detoxified patients with opioid dependence in a camp setting.

Shanthi Ranganathan et al (14) published the first paper on community alcohol de-addiction in India. They had treated about 105 patients over 4 years in a rural hamlet in South India. Though they had reported improvement rates of 85%, the outcomes as to what constituted improvement were not clearly defined.

Chavan et al 2003, (20) did a study in PGIMER, Chandigarh comparing the outcomes of de-addiction being offered in camp setting with that being offered in a hospital setting. They had recruited 67 patients with substance dependence in the study group (community) and 44 patients with substance dependence in the comparison group (hospital). However the sample was not homogenous as a large proportion of patients had diagnosis of opioid dependence rather than alcohol dependence. They were provided de-addiction and were evaluated at time of discharge and 3 months after discharge. Disulfiram therapy was initiated in 5 of 36 patients in the study group and 4 of 18 patients in comparison group.

Age at presentation in the community group (38.7, SD 12.29 years) was significantly higher than in the comparison group (32.3, SD 9.05 years). At the end of 3 months, 43 (64.2%) patients from the camp setting were abstinent and 18 (40.9%) from the hospital sample were abstinent however the difference was not statistically significant. The authors also noted that standard screening instruments were not used, and since consumption of natural opiates and alcohol was culturally accepted in that part of the country, the results couldn't be generalized.

The same authors had published another study in 2005, where they had studied the outcomes of community de-addiction. They had recruited 46 patients with a history of substance use. Again the sample was heterogenous and included alcohol(23), opiates(20), cannabis(2), sedative/hypnotic(1). They were admitted in 2 different community camps for 10 days and then were followed up in community outreach clinics in the respective villages.

Thirty six patients had (78.3%) completed 6 months follow-up. Six month abstinent rate was 22%, however the authors report that 50% of patients reported a decrease in drug usage which was also taken as good outcome measure.

A review by Kohn et al (17) to evaluate the utilisation of psychiatric services in low and middle income countries found that among all mental illnesses, alcohol abuse and dependence had the widest treatment gap at 78.1%. They also noted that this could be an understatement due to the scarcity of information available from these countries. A majority of the patients with alcohol use disorders do not receive any treatment, as they seek help for initial alcohol-related issues from primary health care providers who are not well trained to recognise the problem. And even if they do get help, it is after a decade when they finally receive some treatment, by which time the disease has become more severe.

A review published by Benegal at al (32) recommends a stepped up approach to treat de-addiction where each step involves a more complex intervention requiring more specialised care. The steps they mention are listed below.

Step 1

is to recognize alcohol problems in the primary health care and general hospital settings

Step 2

is treating harmful drinking/abuse in primary care setting

Step 3

is treating moderate-to-severe dependence in primary health care settings in collaboration with tertiary care centres

Step 4

is treatment by a psychiatrist

Step 5

is inpatient treatment at a centre offering specialist care.

Aims and Objectives:

Aim:

To compare the effectiveness of a community based de-addiction treatment with traditional traditional hospital based de-addiction offered at a psychiatric in-patient facility in a tertiary care centre.

Objective:

Primary outcome:

To compare the abstinence and relapse rates during the 6 months follow-up between the community based de-addiction treatment group and the hospital based de-addiction treatment group.

Secondary outcomes:

To compare the drinking percentage days, drug compliance, duration of follow up and the number of group visits,between the two groups.

Methodology:

The salient features of the de-addiction treatments offered in the hospital and the community are described below:

Community based de-addiction treatment:

A community based de-addiction program was planned in a Rural Health Centre (RHC) run by Department of Community Medicine, PSG hospitals located in Vedapatti, this is located in a village which is 30kms away from our medical college. Patients who had drinking problems hailing from the area served by the RHC were asked to attend a screening camp.

37 patients had come to attend the initial screening camp. Patients who had uncontrolled systemic diseases, co-morbid other substance use were referred to medical college hospital for further management. Of 37 patients, 34 patients were asked to attend the screening.

During the second screening held over 2 days, each patient was evaluated by a psychiatric resident under the supervision of a psychiatric consultant. Those who had other Axis I diagnoses referred to the Department of Psychiatry of our medical college for further management. Patient who qualified for a diagnosis of alcohol dependence based on ICD 10 criteria were recruited for the study, after taking informed consent. Those who had been selected underwent lab investigations including a complete hemogram, random blood sugar, liver function test, and serum creatinine and patients with severe derangements were again referred to the PSG hospitals for further management. Of the 34 patients 25 were selected to undergo de-addiction treatment.

The community based de-addiction was a 2 week program during which the patients were required to stay within the RHC campus. The care givers were required to stay with the patients during the day. Detoxification was done with either chlordiazepoxide or lorazepam based on liver function status. The dose was decided empirically due to shortage of man power to apply Clinical Institute Withdrawal Assessment scale. They were also started on parenteral thiamine and multivitamins. During the initial 4 days a psychiatric resident was posted at the PHC to watch for any complicated withdrawal symptoms. The remaining 10 days the resident conducted rounds at least once during the day.

Patients had group sessions on the effect of alcohol on health, family and occupation by a mental health worker. One to one sessions were also held where each patient was allotted a mental health worker, and cues analysis and management, and interpersonal problems were discussed. Over all the treatment of the substance use problem was less intense compared to the treatment offered in the department of psychiatry in PSG hospitals.

Education about Disulfiram, and getting consent for the same was done by a psychiatric consultant. They were monitored for side-effects and dose adjusted accordingly. Patients were discharged at the end of 2 weeks and asked to follow up at the PHC 1 week following discharge after that every 3rd Sunday in the following months

Hospital based program:

This treatment took place in the de-addiction ward belonging to the department of Psychiatry at the hospital. Patients with alcohol dependence syndrome according to ICD 10 criteria were admitted for a 2 week in patient program. It was required for the primary care giver to be present throughout the duration of stay. Baseline investigations had done include random blood glucose, complete hemogram, renal function test and liver function test including GGT. Patients were detoxified with benzodiazepenes either chlordiazepoxide or lorazepam, based on liver function status. The Clinical Institute Withdrawal Assessment scale was used to give symptom triggered treatment and tapered based on the symptom remission on a case to case basis. They were also given parenteral thiamine and multivitamins.

Following detoxification patients attended group session where topics such as education on the effects of alcohol on health, family and occupation, cues analysis and management, high risk situations were discussed. Also each patient was allotted a resident, who under the supervision of a consultant, provided aversion therapy, cues analysis and management, covert sensitization, relapse prevention strategies and anti-craving agents tailored to the individual patient. Patients were educated on Disulfiram and after evaluating patient's motivation, if care giver could monitor the medication and if there were no contraindications, they were started on Disulfiram after taking consent from both the patient and the care given. They were evaluated if they tolerate the medication and any dose adjustments required are made. Following discharge they were asked to follow up at the hospital after a week with care giver. Further follow up was every 2 weeks for up to 2 months and every month there on.

For the purpose of the study, sociodemographic details were collected from both groups using a semi-structured proforma.

Both group of patients were administered the following scales:

SADQ:

Severity of alcohol Dependence Questionnaire(SADQ) is 20-item self administered questionnaire developed by Edwards & Gross (1976) and Edwards (1978) (11) for assessing the severity of alcohol dependence. It has 5 sub scales to measure 5 components viz. Physical and Affective Withdrawal, Withdrawal Relief Drinking, Alcohol Consumption, and Rapidity of Reinstatement. Each item is scored on 4 point scale where 0 indicates never and 4 indicates almost always. Its construct, face and content validity are well established and so is the reliability. It has been used in many studies to measure the severity of alcohol dependence. We used SADQ –community version which measures the severity of alcohol dependence in last three months. A score of greater than 30 was considered as severe alcohol dependence.

DrInC questionnaire:

Drinker's Inventory of Consequences (DrInC) developed by William Miller (12), is a questionnaire, with different versions, both self rated and care giver rated. It gives the impairment caused by drinking in various domains such as physical, inter and intra personal, impulse control and social responsibility. It also has some control questions to gauge if the

patients are being forthcoming in their responses A lifetime version of the scale (DrInC -2L) and a 3 month version(DrInC -2R) are available. The 2L version of the scale measures the lifetime consequences of drinking while the 2R version inventories the consequences of drinking in the past 3 months. DrInC -2R scale was used and raw scores ranging from 0-135 are got and based on which decile scores are obtained and the severity is rated from 1-10, 1 being lowest and 10 being the highest.

DrInC 2R-SOM is a 35 item questionnaire, which is rated by the spouse and the scoring is done similarly and raw scores and decile scores are obtained.

URICA scale:

University of Rhode Island Change Assessment Scale (URICA) is a self administered motivational scale, measuring patients' readiness to change, originally developed by Di Clemente(13). There are 32-item,24-item and 12-item questionnaires. There are 4 subscales each having 8,6, and 4 items respectively. Responses are given on a 5-point Likert scale ranging from 1 (strong disagreement) to 5 (strong agreement). The 4 subscales measure the four stages pre-contemplation, contemplation, action and maintenance. The final score is got by adding the scores for subscales of contemplation, action and maintenance and subtracting the pre-contemplation scores from it. We used 12-item scale for the current study. The results were described in four stages : Precontemplation, Contemplation, Action and Maintenance.

All the scales were translated into Tamil and then back translated into English to see for equivalence and the process was repeated till equivalence was achieved.

Assessments:

The patients from the community sample following discharge were asked to follow up on the third Sunday of every month at the RHC where the in-patient treatment was given, and the hospital sample were asked to follow up on either 2nd or 4th Saturday of every month at Department Psychiatry in the medical college hospital. Information was collected about drug compliance, any lapse of drinking and if there was a lapse, the number of drinking days, number of drinks on drinking days. Patients who did not attend the follow up were contacted over phone. Both the patient and the primary care giver were interviewed separately.

The primary outcomes were Abstinence and relapse rates. We analyzed the outcomes by dividing the patients into 4 groups based on the information over the previous 4 weeks of assessment:

1) Abstinence: Patient had not taken alcohol

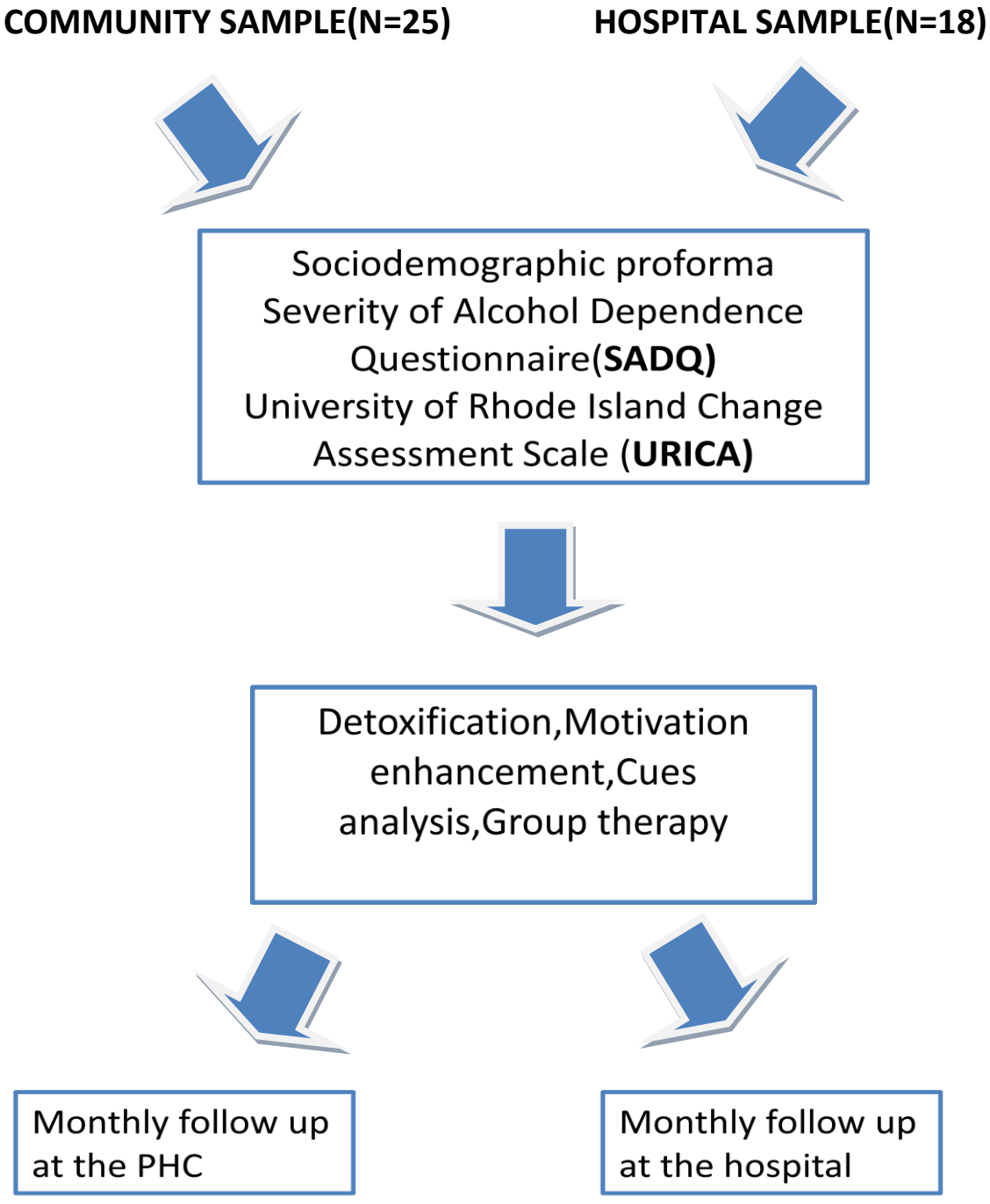
2) Occasional drinking: Patient had taken alcohol but not drinking every day

3) Daily drinking: Patient drinks alcohol every day but not during the day time

4) Daytime drinking: Drinking even during the day time.

We also calculated Drinking percentage days as: Number of drinking days/Total days of follow-up.

Fig1 Flowchart Showing Methodology



Analyses:

Statistical analysis was conducted using SPSS version 19.0 for Windows.

All variables were checked for normality using the Kolmogorov-Smirnov test.

We did parametric tests for the normally distributed data and did non-parametric tests for the rest. We used student's t test to compare the following normally distributed continuous variables: Mean time for the first drink, mean drinking days percentage, duration of alcohol intake, duration of daily drinking, SADQ score.

The following continuous variables were not normally distributed : onset of first drink, length of abstinence, URICA score, length of follow-up, duration of drug compliance, group visits, we used Mann Whitney U test to compare the groups.

Simple t test was used to compare the baseline drinking percentage with drinking percentage at the end of each month.

Chi-square test and fisher's exact test were used to compare categorical variables: marital status, socio-economic status, telephone status, smoking status, other substance status, co-morbid medical illness, family history of alcoholism, history of withdrawal seizures, delirium tremens, benzodiazepine use, SADQ grade, URICA grade, abstinence medications and primary outcome measures: number of patients remaining abstinent and relapsed.

All reported p values are two tailed and the significance level was kept as $p<0.05$.

Results:

1. Baseline profile of the study sample

2. To compare the primary outcome measure, i.e abstinent rates at the end of 6 months

3. To compare secondary outcome measures - duration of follow up, drug compliance, number of group visits and drinking percentage.

There were 25 patients in the community based de-addiction treatment and 18 patients in the hospital based de-addiction treatment.

Baseline profile of study sample:

All patients were males and the mean age of the hospital sample and the community sample was **36.24(SD-7.293) and 42.22 (SD-7.167)** respectively, and the difference was statistically significant. The community sample being younger compared to the hospital. More than 84 per cent of the patients were married.

Both the groups were comparable in all the sociodemographic variables as shown in Table 1

Table 1: Baseline Sociodemographic Details Of The Study Sample

Variable		Community N=25(%)	Hospital N=18(%)	Significance
Age		**36.24(SD-7.293)**	**42.22 (SD-7.167)**	**t=2.680 (p=0.011)**
Marital Status	Married	21 (84)	16(89)	
	Unmarried	3(12)	2(11)	$X^{2=}0.75$
	Separated	1(4)	0(0)	p=.685
Employment	Unemployed	1(4)	0(0)	
	Semi skilled	5(20)	2(11)	$X^{2=}6.7$
	Skilled	19(76)	14(78)	p=.242
	Professional	0(0)	2(11)	
Income	<2000	1(4)	0(0)	$X^{2=}4.774$
	2001-8000	6(24)	3(16.7)	P=.573
	8001-16000	17(68)	11(61.1)	
	>16000	1(4)	4(22.3)	

Education	Illiterate Middle school High school Graduate and above	5(20) 20(80) 0(0) 0(0)	5(28) 4(22.) 6(33.3) 3(16.7)	$X^{2=}$9.11 P=.105
Medical Illness	YES NO	5(20) 20(80)	5(27.8) 13(72.2)	$X^{2=}$10.6 P=.101

Baseline substance use characteristics:

Smoking status:

In the total sample, more than 80 percent of the patients were smokers, and they were equally distributed between the groups.

Positive family history:

A high number of patients (59%) had positive family history of alcohol use, which again was equally distributed between the groups.

Age at daily drinking:

Age at first drink was comparable between the groups, but the age at onset of daily drinking was significantly lower in the community sample **28.8 years (SD=6.3)** compared to **33.7(SD=6.4)** years in the community.

Duration of alcohol use

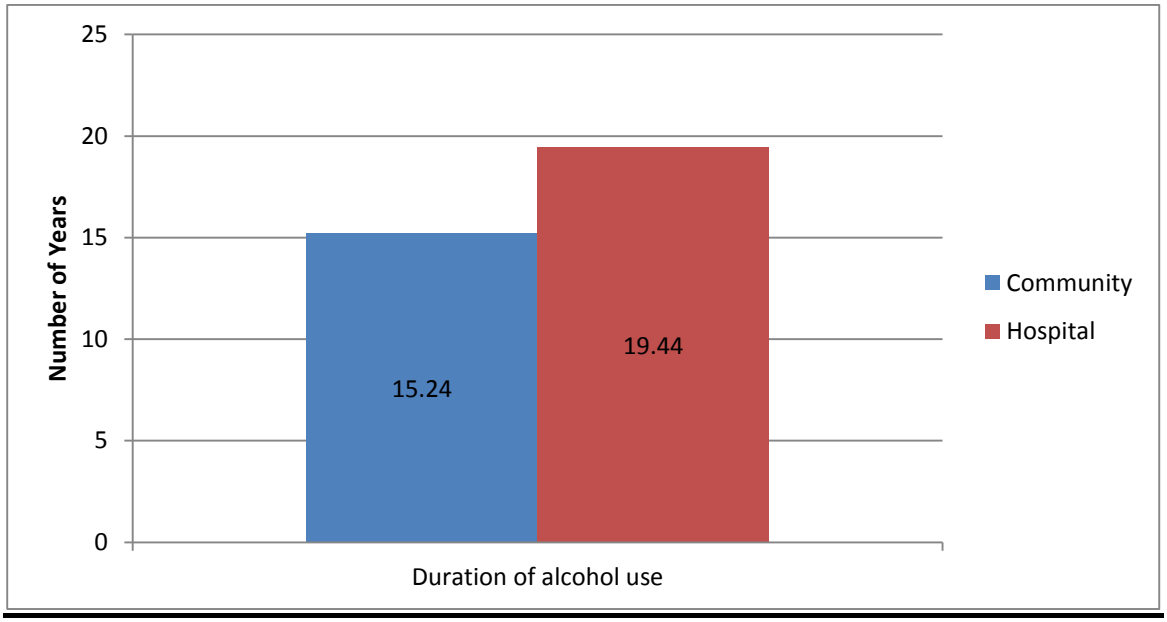
The duration of alcohol use was longer in the hospital sample **19.44(SD=7.12)**, compared to the community sample **15.24(SD=6.54)**.

The baseline substance use characteristics are given in Table 2

Table 2:Baseline Substance Use Characteristics

Variable		**Community N=25(%)**	**Hospital N=18(%)**	**Significance**
Smoking	No Yes	2(8) 23(92)	3(17) 15(83)	$X^{2=}$.765 p=.382
Family History	None Father Sibling Both	11(44) 5(20) 6(24) 3(12)	7(38.9) 3(16.7) 6(33.3) 2(11.1)	$X^{2=}$.426 P=.927
Age At First Drink		20.96(5.6)	22.78(5.7)	Z =-1.23 P=.217
Age At Daily Drinking		**28.8(6.3)**	**33.7(6.4)**	**t=2.437** **p=0.020**
Duration Of Alcohol Use		**15.24(SD=6.54)**	**19.44(7.12)**	**t =1.975** **p=0.05**

Fig2 Duration Of Alcohol Use In The Two Groups



Baseline Severity Of Alcohol Dependence:

We used two scales to measure the severity of alcohol dependence.- the SADQ scale and the DrInC questionnaire.

SADQ:

The mean SADQ scores were 20.36(SD=11.46) for the community and 26.89(10.46) for the hospital sample and the difference was not statistically significant.

SADQ Grade:

The grading of severity as mild, moderate and severe based on SADQ scores, were comparable between the two groups and did not show a statistical difference.

DrInC and DrInC SOM:

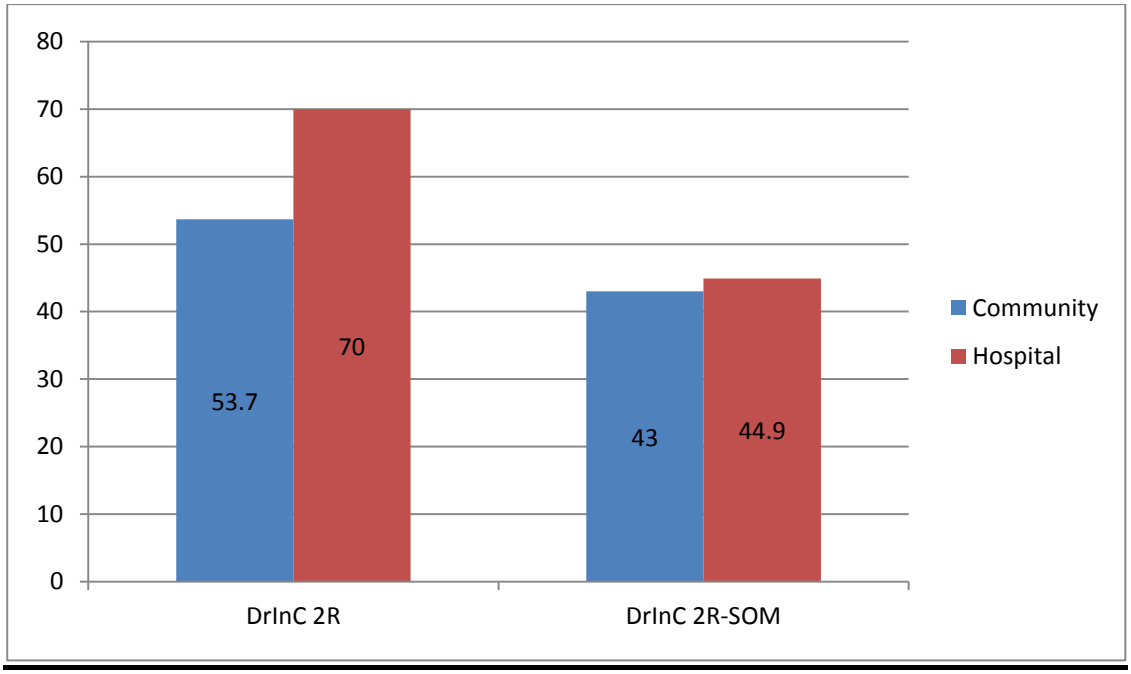
The DrInC scores showed the hospital sample had a mean score of 70(SD=21.4) while the community sample had score of 53.7(SD=20.276). The difference between the groups was statistically significant. However the spouse rated DrInC –SOM didn't show any significant difference between the groups.

Table 3 shows the severity of alcohol dependence based on the 2 rating scales.

Table3:Severity Of Alcohol Dependence

Variable		**Community N=25(%)**	**Hospital N=18(%)**	**Significance**
SADQ		20.36(11.46)	26.89(10.46)	t =1.939 p=0.06
SADQ Grade	Mild Moderate Severe	10(40) 10(40) 5(20)	6(33.3) 6(33.3) 6(33.3)	$X^{2=}$4.401 p=.11
DrInC 2R		**53.7(20.276)**	**70(21.4)**	**t=2.513** **P=0.017**
DrInC 2R SOM		43.0(16.8)	44.9(11.85)	t=4.11 P=0.684

Fig 3 Comparing Severity As Measured By DrInC Scores



Baseline Motivation Profile Of Study Sample:

Motivation level at baseline was assessed by URICA scale.

Mean URICA score of the community sample was13.66(SD=1.4), and the hospital sample was 8.78(SD=3.87) . It was highly statistically significant, showing the community sample to be better motivated than the hospital sample.

It was also reflected in the URICA grade as most of the patients(88%) in the community sample were in the action phase while only one third of the hospital sample were.

Table 4:Baseline Motivation Profile

		Community N=25(%)	Hospital N=18(%)	Significance
URICA Score		13.66(SD=1.4)	8.78(SD=3.87)	Z=-3.635 P=0.01
URICA Grade	Pre Contemplation	0(0)	6(33.3)	$X^{2=}$15.4 p=.0001
	Contemplation	3(12)	6(33.3)	
	Action	22(88)	6(33.3)	

Fig4 Comparison Of URICA Motivation Scores

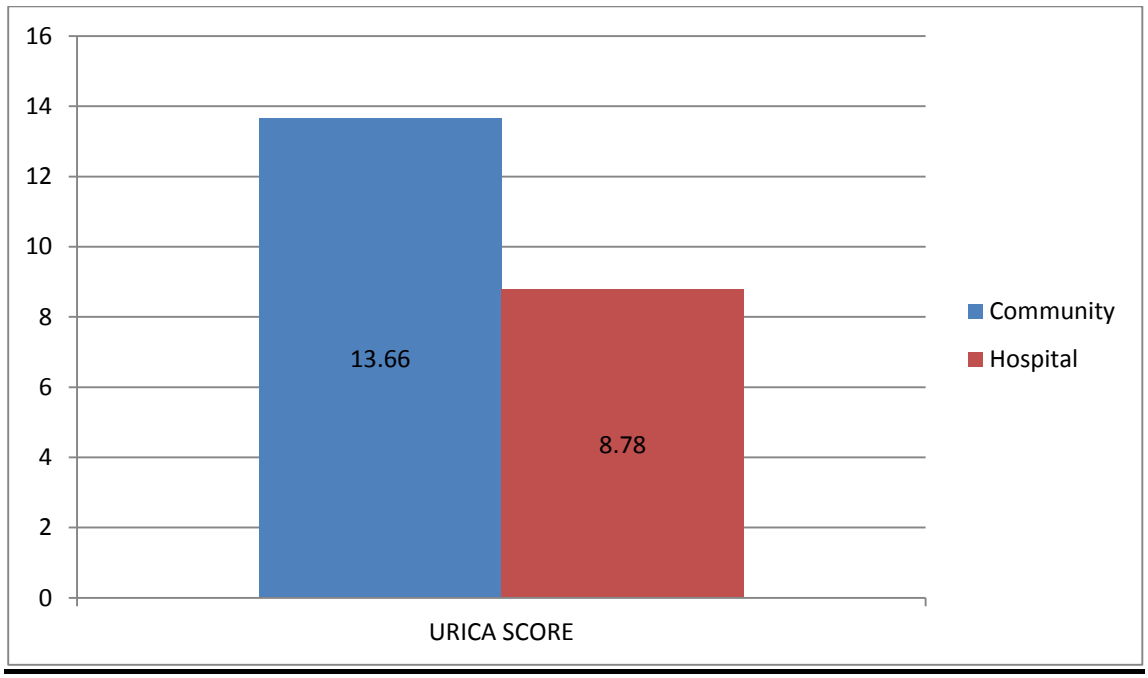


Fig5 Motivation Grades-Community

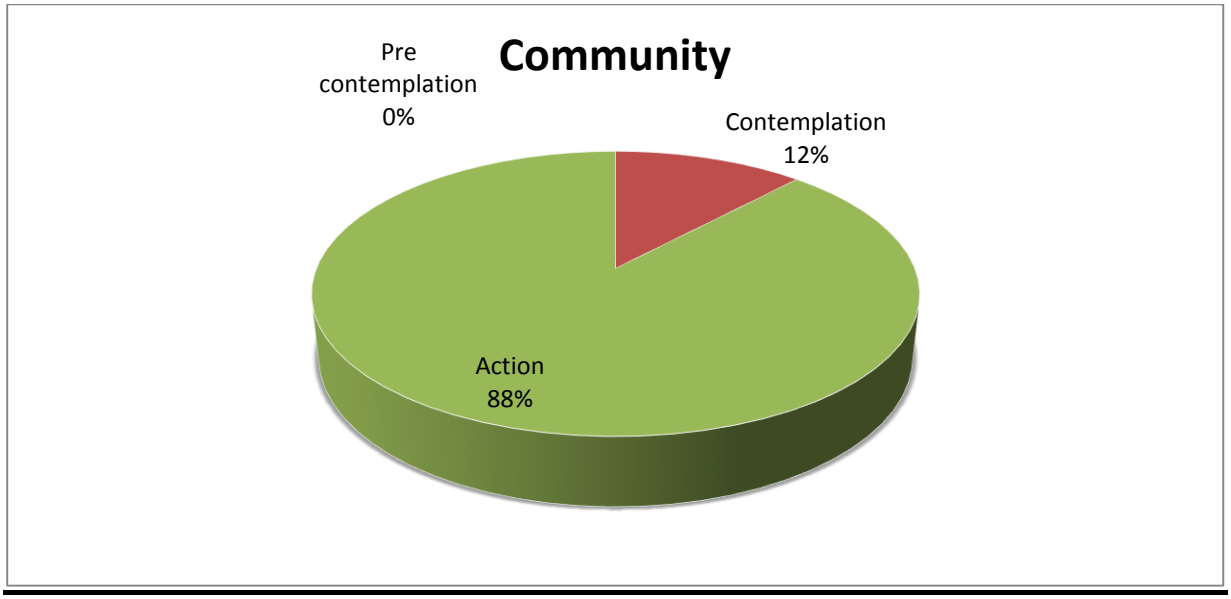
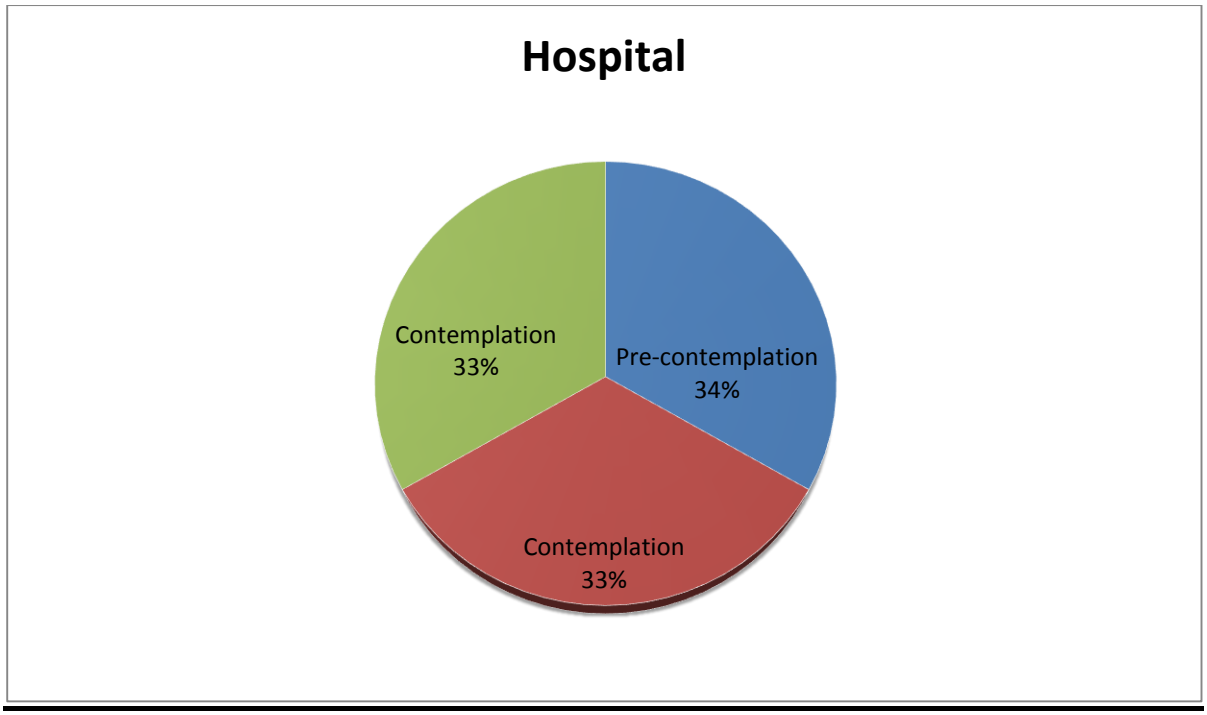


Fig6 Motivation Grades Hospital



Treatment Variables:

Duration Of Hospital Stay:

Duration of hospital stay was 14 days in both the groups.

Detoxification:

Only 56% of the patients in the community and 44% of patients in the hospital needed detoxification with benzodiazepines (chlordiazepoxide/ lorazepam) and the difference between the groups was not statistically significant.

Complicated Withdrawal:

None of the patients had a complicated withdrawal during the hospital stay.

Table5:Treatment Variables

Variable		**Community N=25(%)**	**Hospital N=18(%)**	**Significance**
Duration of Hospital Stay(in days)		14(SD=0)	14(SD=0)	
Detoxification With Benzodiazepenes	No Yes	14(56) 11(44)	8(44.4) 10(55.6)	$X^{2=}$4.505 P=0.105

Complicated Withdrawal	Yes No	0(0) 25(100)	0(0) 18(100)	$X^{2=}$.737 p=.393

Abstinence Medication:

All the patients in the community were started on Disulfiram, while all the patients in the hospital sample were also on some abstinence medication, most of them on Disulfiram(88%) and the rest were started on baclofen.

Table6:Abstinence Medication

Abstinence Medication	**Community N=25(%)**	**Hospital N=18(%)**	**Significance**
None Disulfiram Others	0(0) 25(100) 0(0)	0(0) 16(88.9) 2(11.1)	$X^{2=}$2.913 p=0.088

There was no difference in the duration of hospital stay or in the use of abstinence medication between the groups.

Primary Outcome Measures:

Primary outcome measures were:

1) Abstinence

2) Occasional drinking

3) Daily drinking

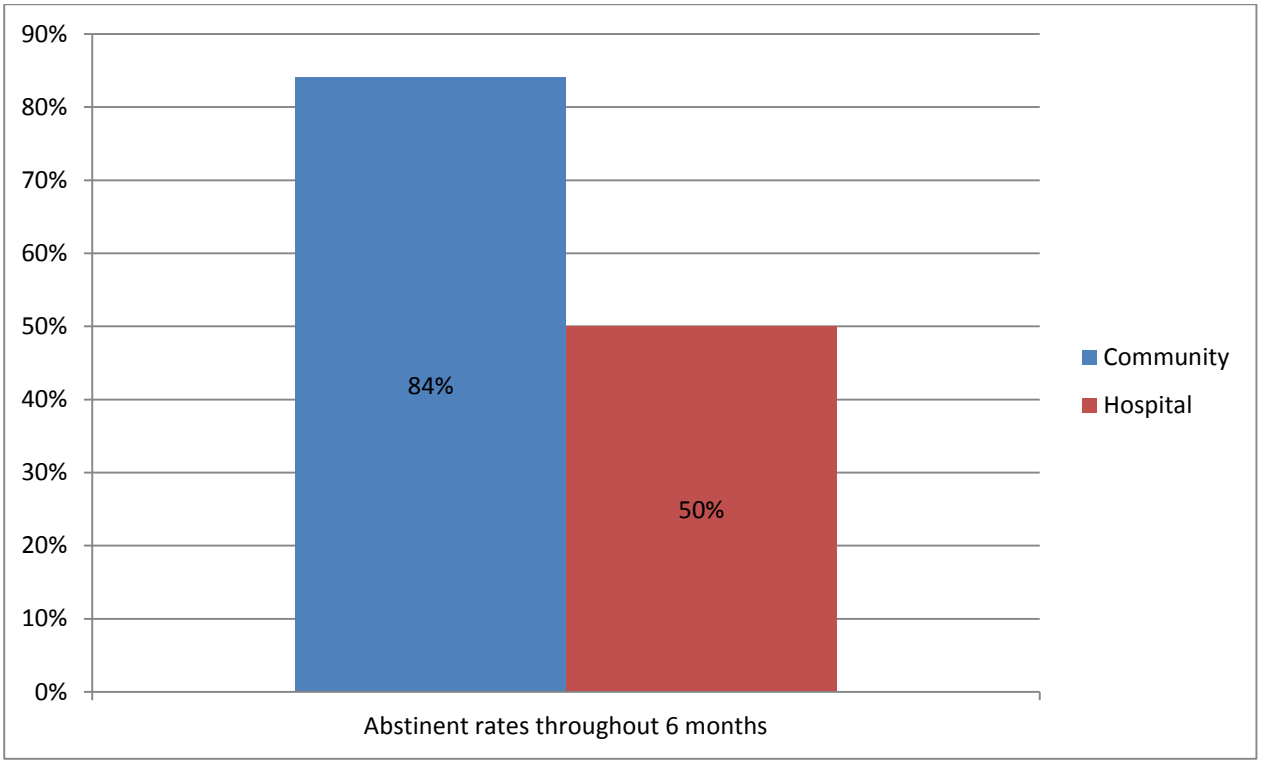
4) Daytime drinking

Over the 6 month follow-up, 84% (=abstinent and = occasional lapses) in community based de-adddiction group were abstinent compared to 50% (=abstinent and = occasional lapses) in the hospital based de-addiction treatment group and this highly statistically significant(table 7).

Table7:Overall 6 Month Outcome

	Community N=25(%)	**Hospital N=18(%)**	**Significance**
Abstinent Rates	9(50)	21(84)	$X^{2 =} 5.37$ p=0.017
Relapse Rates	9(50)	4(16)	

Fig7:Overall 6 Month Outcome



At the end of first month 100 percent of patients in the community remained abstinent, while 83.3 percent of the patients in the hospital remained abstinent. During the follow-up, the abstinent rate declined in both the groups but the abstinent rates were higher in the community group than the hospital group during all the assessment period. This difference reached statistical significance in the **third and fourth month**.

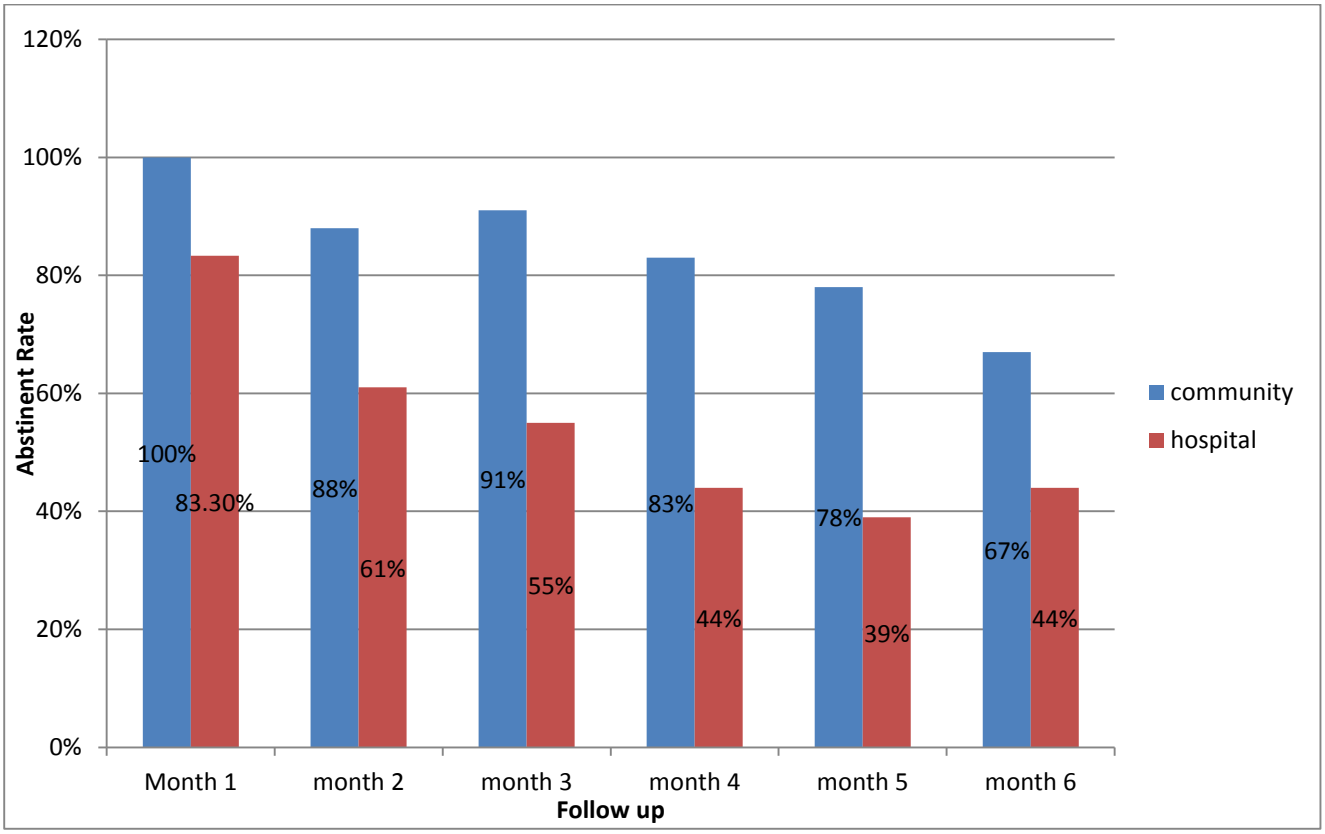
The abstinent rates at the end of each month is given in Table 8

Table 8: Primary Outcome Measures- Abstinent And Relapse Rates During Follow Up

Variable		**Community N=25(%)**	**Hospital N=18(%)**	**Significance**
1st month Outcome	Abstinent	25(100)	15(83.3)	X^2=4.479
	Occasional	0	2(11.1)	p=0.107
	Daily	0	1(5.6)	
	Daytime	0	0(0)	
2nd month Outcome	Abstinent	22(88)	11(61.1)	X^2=4.65
	Occasional	2(8)	4(22.2)	p=0.199
	Daily	1(4)	2(11.1)	
	Daytime	0	1(5.6)	
3rd month Outcome	**Abstinent**	**22(91.7)**	**10(55.5)**	**X^2=9.027**
	Occasional	**0**	**4(22.2)**	**p=0.029**
	Daily	**2(8.3)**	**3(16.7)**	
	Daytime	**0**	**1(5.6)**	
4th month Outcome	**Abstinent**	**20 (83.3)**	**8(44.4)**	**X^2=8.458**
	Occasional	**2(8.3)**	**6(33.3)**	**p=0.037**
	Daily	**2(8.3)**	**2(11.1)**	
	Daytime	**0**	**2(11.1)**	

5th month Outcome	Abstinent	18(78.3)	7(38.9)	X^2=9.46 p=0.092
	Occasional	2(8.7)	5(27.8)	
	Daily	3(13.0)	3(16.7)	
	Daytime	0	2(11.1)	
6th month Outcome	Abstinent	16(66.6)	8(44.4)	X^2=3.526 p=.474
	Occasional	4(17.4)	5(27.8)	
	Daily	1(4.3)	2(11.1)	
	Daytime	2(8.7)	3(16.7)	

Fig 8: Abstinent Rates At The End Of Each Month



Secondary Outcome Measures :

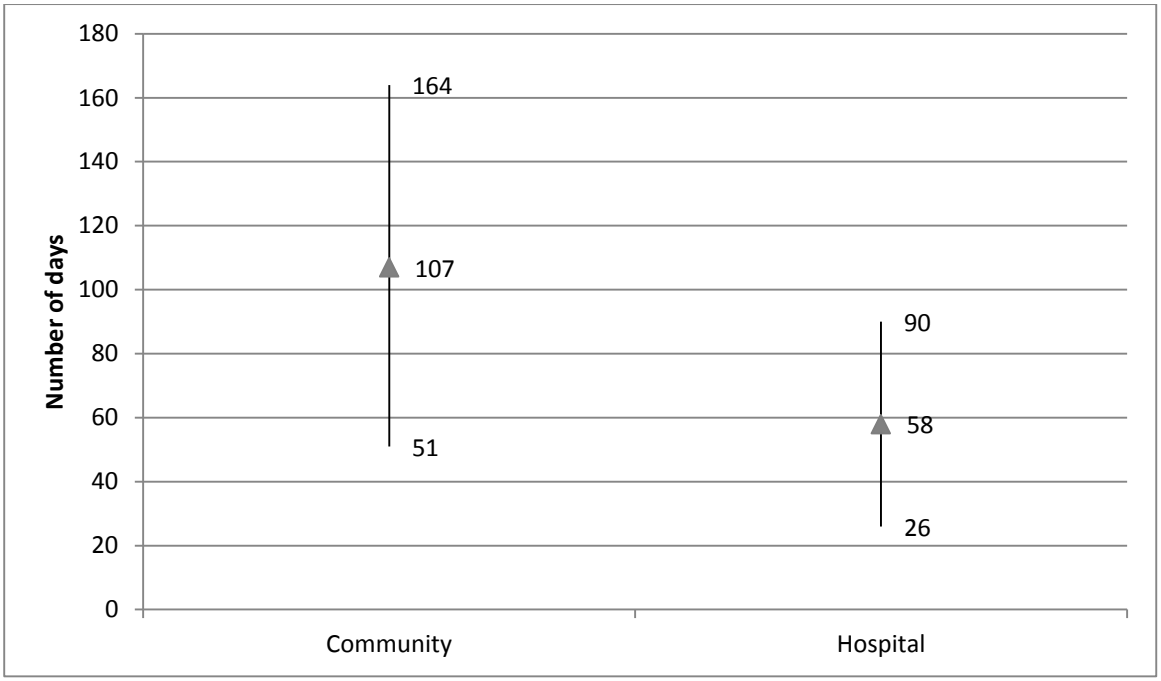
Onset of first drink after discharge:

The onset of first drink was much delayed in the community sample, **107 days (SD=56.27)** compared to the hospital sample **58.3(32.7),** and the difference was statistically significant.

Table9: Onset Of First Drink

	Community sample	Hospital sample	Significance
Onset at first drink	**107.73 (SD=56.27)**	**58.3 (SD=32.7)**	**Z=-1.942 P=0.051**

Fig9 Onset Of First Drink



Drug Compliance:

Community sample had better drug compliance compared to the hospital sample. Mean drug compliance in the community was **142(SD=51.5)** days compared to **94.5(62.3)** days for the hospital sample, and the difference was highly significant.

Length Of Follow Up:

The length of follow up was longer in the community sample, **150 days(SD=45)** compared to the hospital sample, **90.83 days(SD=58.3)** and this was statistically significant.

Number Of Group Visits:

The community sample had more group visits, average of 5 visits compared to 3 visits in the hospital sample, which was statistically significant.

The secondary outcome measures are shown in table 10

Table10: Secondary Outcome Measures

	Community **N=25**	**Hospital** **N=18**	**Significance**
Drug Compliance	**142** **SD=51.5**	**94.5** **SD=62.3**	**Z=-2.36** **P=0.01**
Length Of F/U	**150** **SD=45**	**90.83** **SD=58.3**	**Z=-3.33** **P=0.001**
Group Visits	**5.24** **SD=1.69**	**3.06** **SD=1.43**	**Z=-3.83** **P=0.0001**

Fig10 Follow Up And Drug Compliance

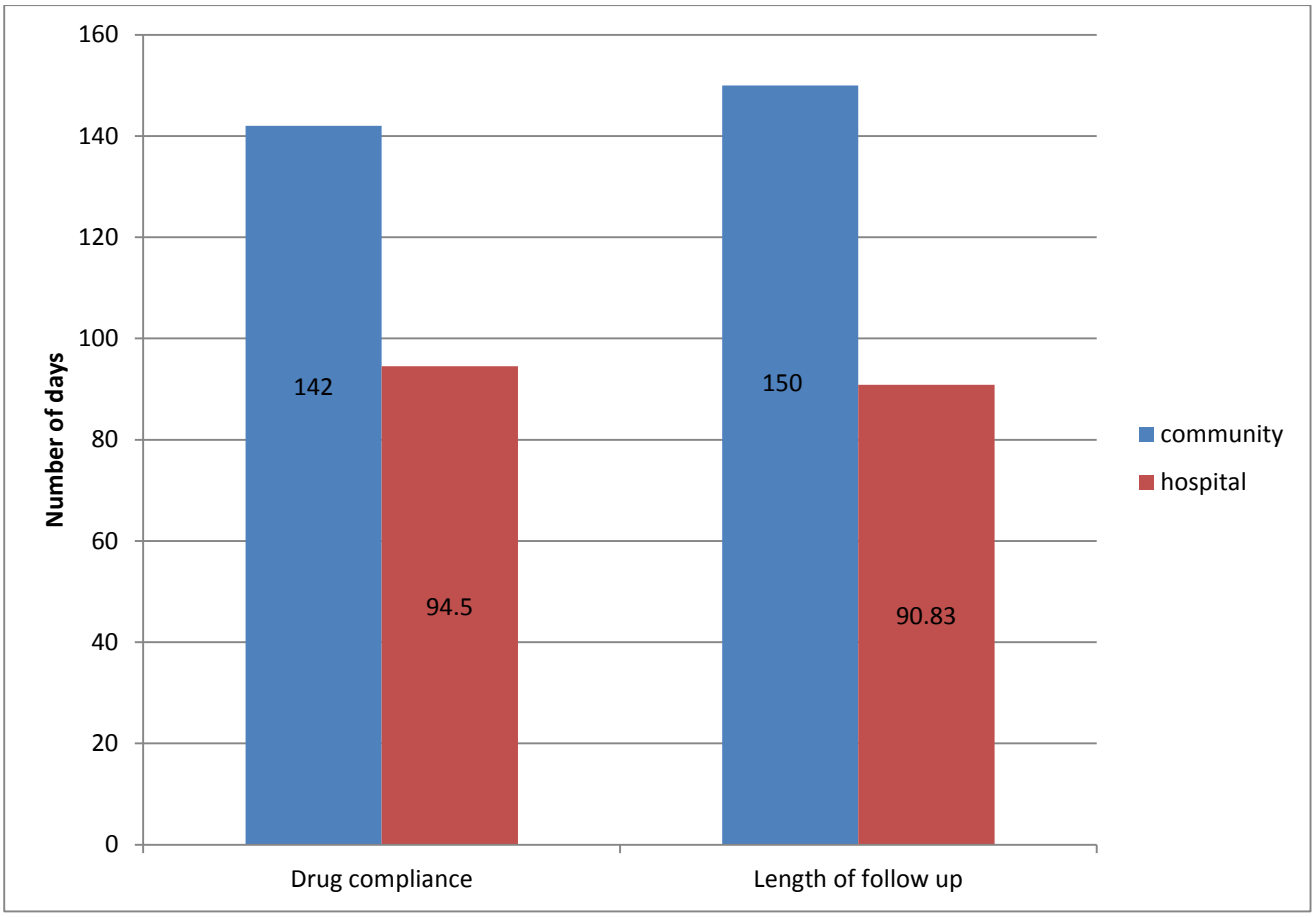
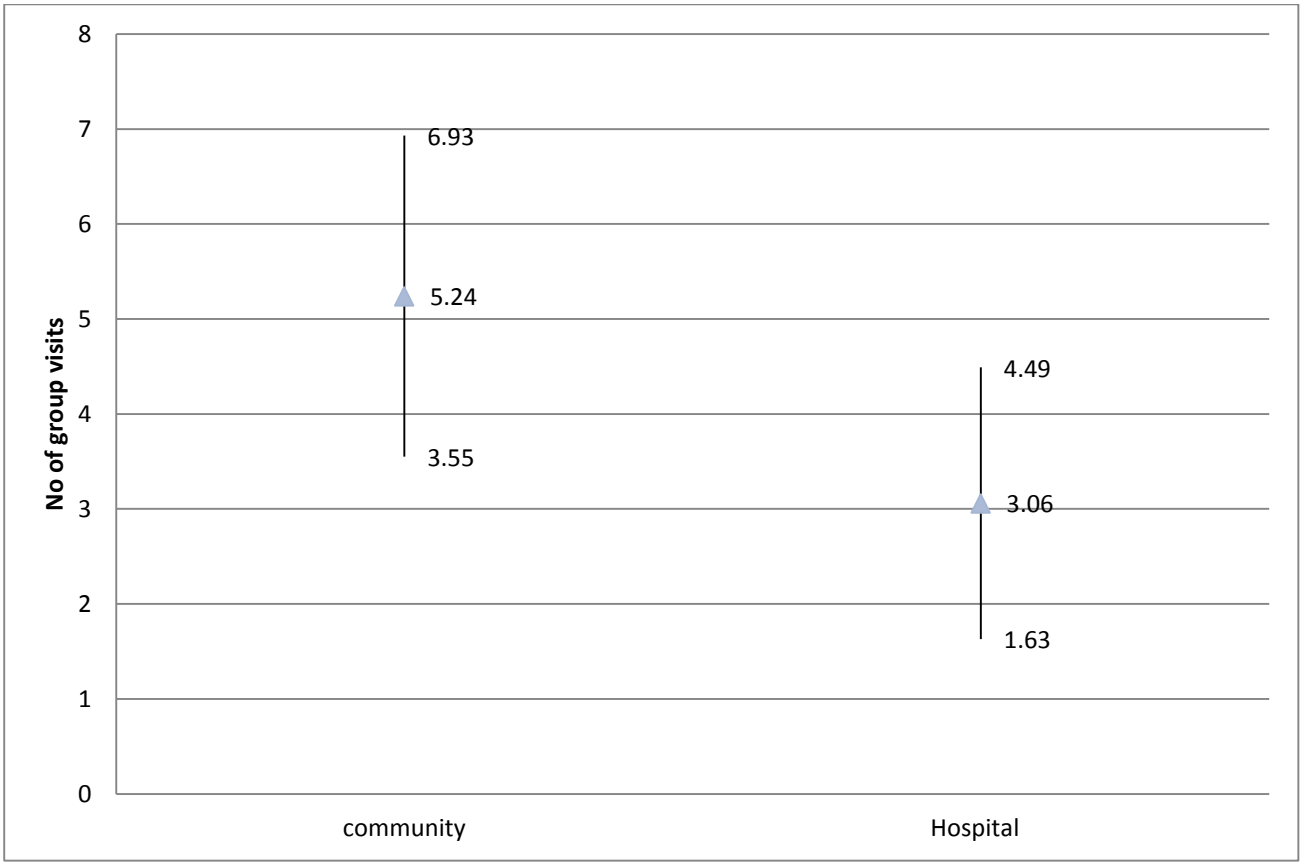


Fig11:Number Of Group Visits



Drinking Percentage:

Drinking percentage was calculated for the patients who had relapsed. It was calculated as number of drinking days divided by number of days followed up. At the end of first month, none of the patients from the community sample had relapsed, hence the first month drinking percentage could not be compared between the two groups.

The number of patients relapsed in each arm showed more patients in the hospital sample had relapsed compared to the community sample.

From the second to the sixth months, the drinking percentage in the community sample was lower when compared to the hospital sample, except in the third month when the community sample had a higher drinking percentage compared to the hospital sample, however it was not statistically significant.

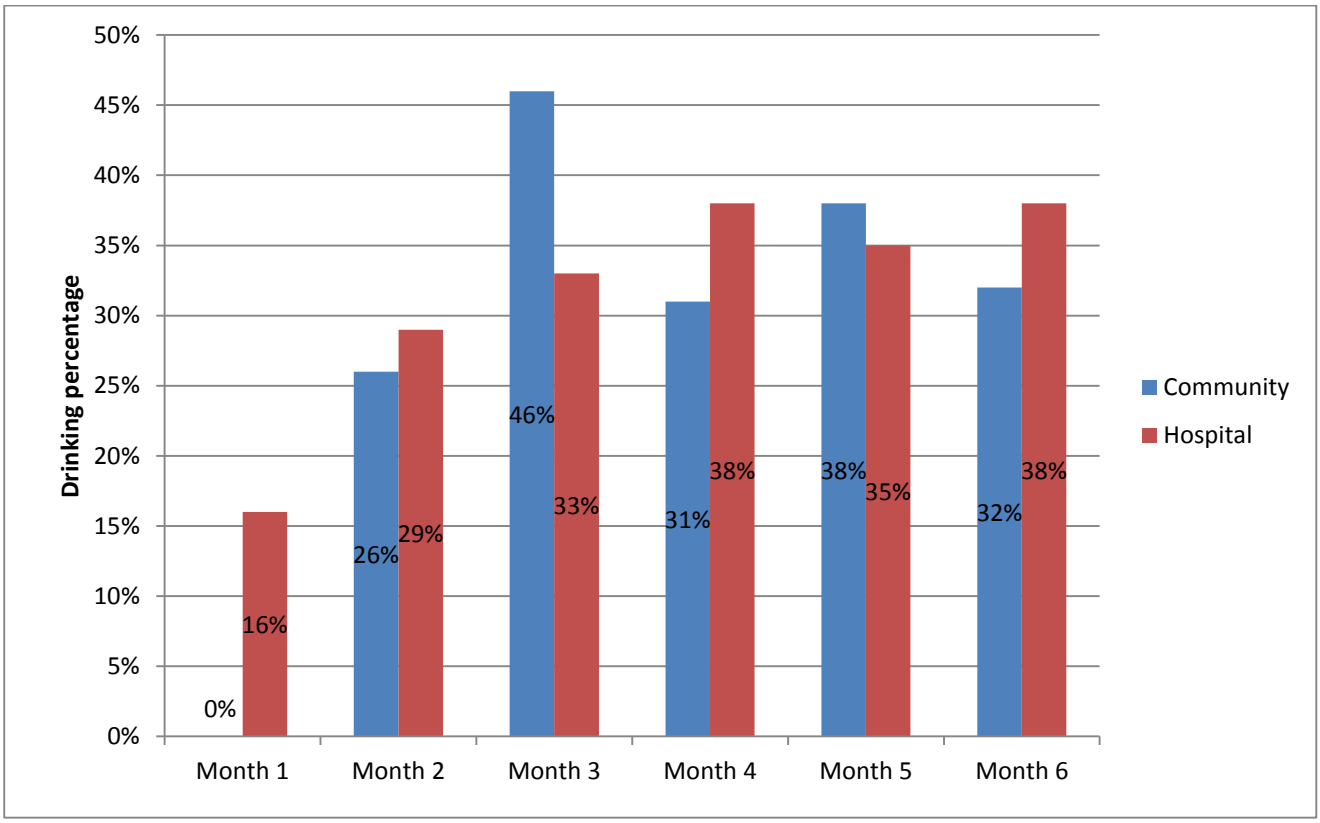
The drinking percentages of the two groups at the end of each month are shown in the table11

Table11:Drinking Percentage For Patients Who Relapsed

Variable	**Community**	**Hospital**	**Significance**
1st Month Drinking %	0.00 SD=0	15 SD=16.41	
Patients Relapsed	0	4	
2nd Month Drinking %	26 SD=28.2	29 SD=20.10	t=.147 p=0.871
Patients Relapsed	3	7	
3rd Month Drinking %	46.05 SD=18.01	33 SD=33.45	t=.753 p=0.508
Patients Relapsed	2	9	
4th Month Drinking %	31.07 SD=33.88	37.69 SD=27.45	Z=-.425 P=0.671
Patients Relapsed	4	12	

5th Month Drinking % Patients Relapsed	38.36 SD=26.77 5	35.23 SD=32.54 12	Z=-.211 p=0.879
6th Month Drinking % Patients Relapsed	31.7 SD=30.6 7	37.7 SD=32.04 12	Z=-0.635 P=0.539

Fig12:Drinking Percentage At The End Of Each Month

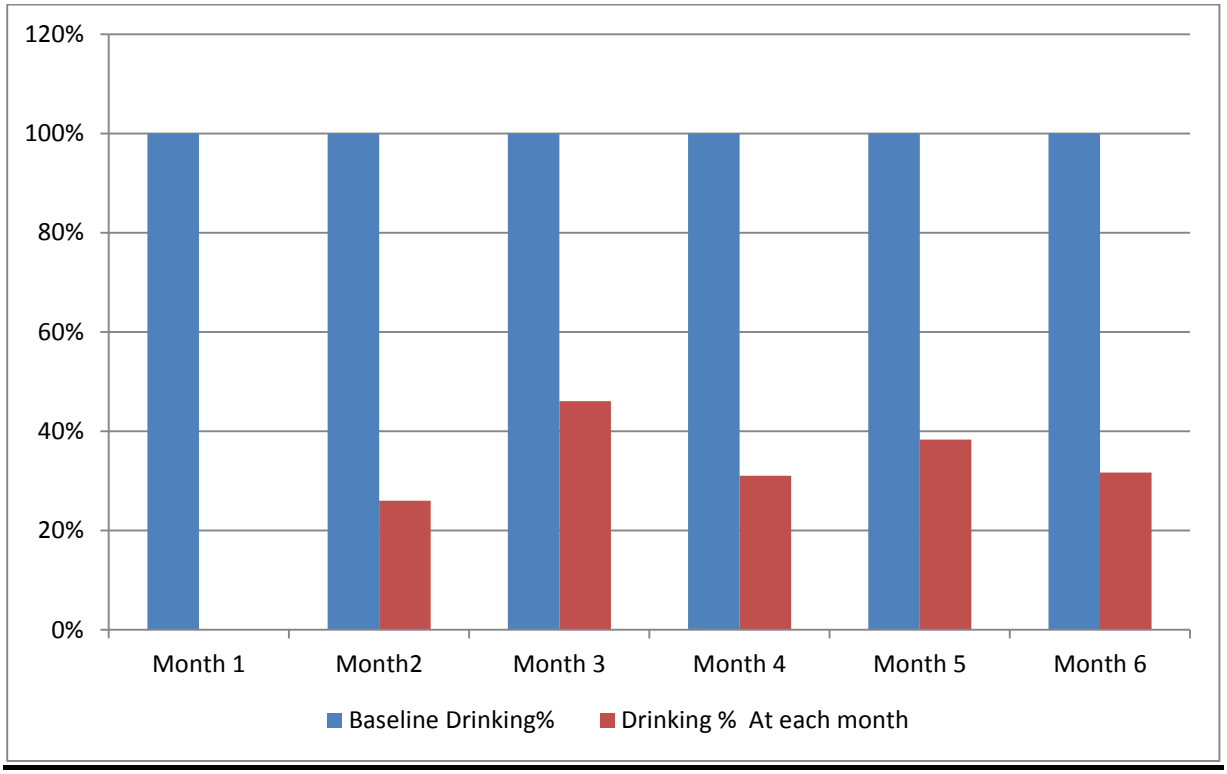


At the end of 6 months, 67% of the community sample and 44% of the hospital sample remained completely abstinent and the rest had relapsed into drinking. Among those who relapsed the drinking percentage which was calculated was compared with the baseline drinking percentage which was 100% in both the groups. This was highly statistically significant.

Table 12 :Reduction In Drinking Percentage From Baseline-Community

	Drinking Percentage	**Percentage Reduction from baseline**	**Significance**
Month 1 Number relapsed=0			
Month 2 **Number relapsed=3**	**26%**	**74%**	**p=0.024**
Month 3 Number relapsed=2	46%	54%	p=0.148
Month 4 **Number relapsed=4**	**31%**	**69%**	**p=0.020**
Month 5 **Number relapsed=5**	**38%**	**62%**	**p=0.007**
Month 6 **Number relapsed=7**	**31%**	**69%**	**p=0.024**

Fig13:Comparison Of Drinking Percentage From Baseline- Community Group

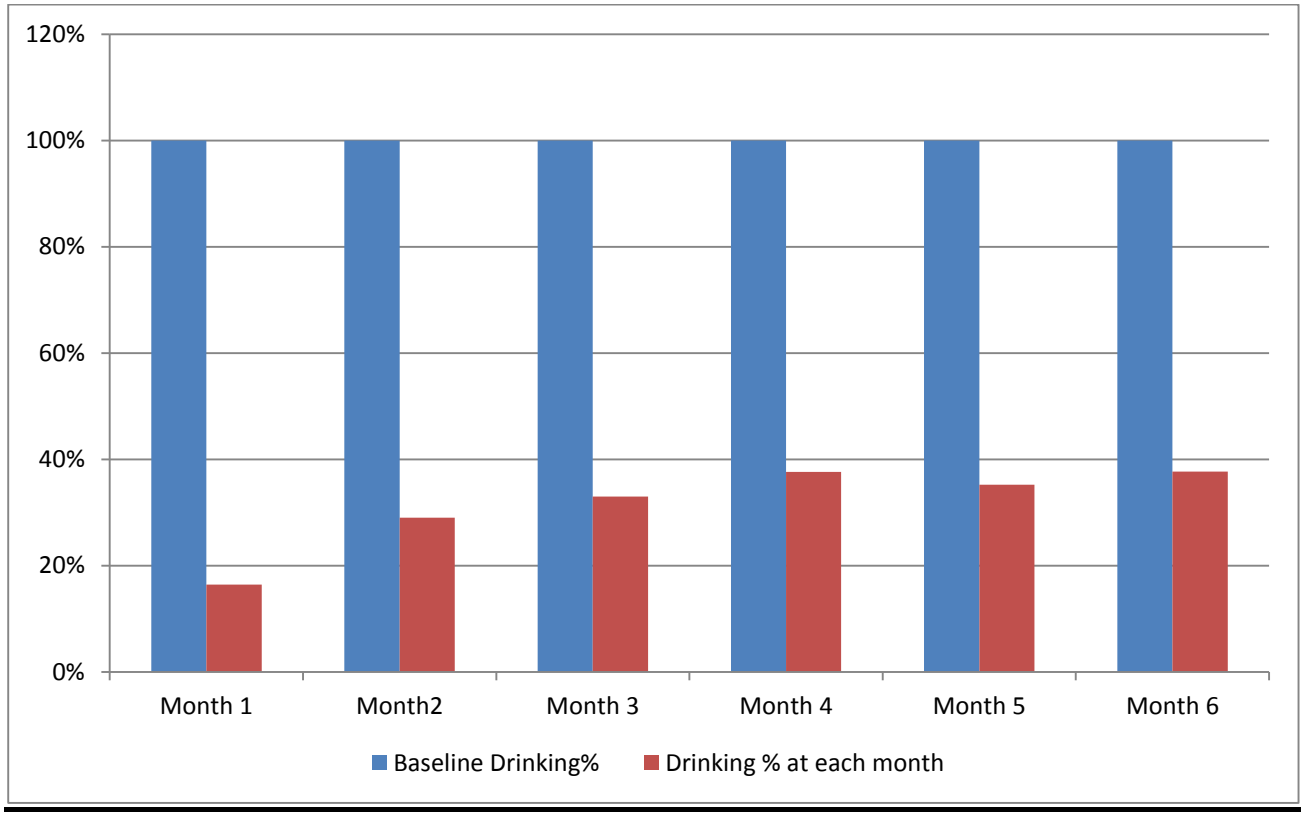


At the end of 1st month no patient in the community sample had relapsed.

Table 13:Reduction In Drinking Percentage From Baseline-Hospital

	Drinking %	Percentage Reduction from baseline	Significance
Month 1 **Number relapsed=4**	**16%**	**84%**	**p=0.002**
Month 2 **Number relapsed=7**	**29%**	**71%**	**p=0.001**
Month 3 **Number relapsed=9**	**33%**	**67%**	**p=0.0001**
Month 4 **Number relapsed=12**	**31%**	**69%**	**p=0.0001**
Month 5 **Number relapsed=5**	**35%**	**65%**	**p=0.0001**
Month 6 **Number relapsed=7**	**31%**	**69%**	**p=0.024**

Fig14:Comparison Of Drinking Percentage From Baseline- Hospital Group



Discussion:

Ours was a prospective cohort study to evaluate the outcomes of a community based de-addiction program and to see the feasibility of implementing such a program in a RHC and to compare the outcomes with hospital based de-addiction given in a tertiary care centre.

We had recruited 2 groups of patients, the community and the hospital sample who were comparable in sociodemographic variables, except that the community sample was younger compared to the hospital sample**(36.2 vs 42.2, p=0.011).**

Baseline substance use characteristics showed that the community sample had started drinking earlier (**28.8 vs 33.7 years, p=0.020**) and they had shorter duration of drinking (**19.44** vs **15.24 years, p=0.05**) compared to the hospital sample.

While baseline severity of alcohol dependence when SADQ scores were taken in to account, the community sample had less severe dependence, though it was not statistically significant. The DrInC questionnaire showed the community sample as having less severe dependence(**70 vs 53.7, p=0.017**).

Studies(15,32,33) have shown that there is a long time gap between the onset of problem drinking the time patient approach a health care facility for help. When the delay is longer the severity of dependence reaches such a level that the patients need treatment in a specialised centre. Our study again confirms this finding that the patients who approach a hospital for de-addiction have more severe dependence for a longer duration, so by intervening early at primary health care level, we could prevent the progress of dependence to a more severe degree.

Baseline motivation levels assessed by URICA score and grade showed the community sample were better motivated and most of them were in the action phase, whereas only one third of patients were in the action phase in the hospital sample.

This we concede could be a potential confounding factor which could have influenced better outcomes in the community sample.

There were no significant difference in treatment characteristics. Both the groups had 14 days of hospital stay, all of them received some medication to maintain abstinence.

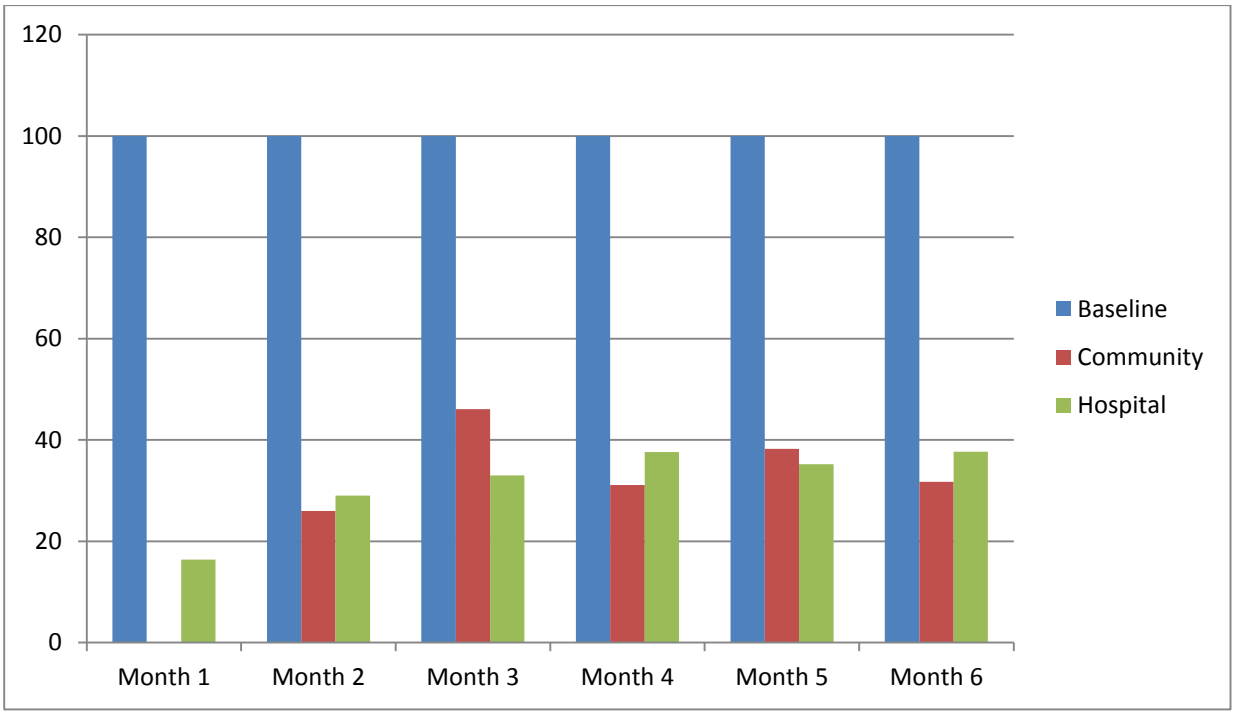
All the patients in the community sample and a majority of the patients in the hospital sample were started on T.Disulfiram. A number of studies(23,24,25) have shown Disulfiram to be effective in maintaining abstinence and delaying the onset of first drink following discharge. Only 2 patients in the hospital group were not started on Disulfiram but were started on baclofen; this would not have affected the results.

Combining abstinent rates and occasional drinking rates as positive outcomes, our 6 months study clearly shows that the community sample had significantly better outcomes than the hospital group (**84% vs 50%, p=0.017**).

Each month assessment showed that the abstinent rate was lower in the community group than the hospital group throughout the 6 months period and it reached statistical significance in the third and fourth months.

One of the secondary outcome measures was drinking percentage days. This was calculated for patients who had relapsed, to see if there is difference in the drinking pattern between the groups. Our results show no difference in the drinking percentage days at the end of each month, however compared to their baseline drinking percentage(100%), there was a significant decrease in their drinking.

Fig 15 Difference In Drinking Percentage From Baseline Of Both The Groups



As we can see from the above chart, drinking percentage had more or less remained stable in the patients who had relapsed and there was a significant decrease in the drinking percentage from the baseline in both the groups.

Secondary outcome measures show that the community sample had longer duration of follow up, better compliance with medication and attended more number of group session.

There are some promising studies (15,16,27) which show that continued care would improve outcomes and was more important than the duration of inpatient stay. Hence by having the PHC as the point of contact for patients to get de-addiction services, we could improve the follow up rate as we have shown in our study, and thereby improve outcomes.

Comparison With Other Studies:

Baseline sociodemographic variables and substance use characteristics when compared with studies done in hospitals showed they had similar profile of alcohol use.

Table 14 shows the alcohol use profile of patients from different published studies based in hospital compared to ours.

Table14: Comparison Of Baseline Substance Use Characteristics With Other Hospital Based Studies

Variable	**Our Study Results Community**	**Our Study Results Hospital**	**Kar et al, 2003**	**Chandrasekaran et al 2001**	**Chand et al 2013**
Age	36.24	42.22	30.8	39.7	38.1
Onset of First drink	20.96	22.78	NA	23.18	NA
Onset of daily drinking	28.8	33.7	29.35	30.07	26.7
Duration of Drinking	15.24*	19.44*	NA	9.71	12.4

*Total duration of drinking

The presence of a positive family history of alcohol was also comparable to other studies.

Table 15:Comparison Of Family History With Other Studies

Variable	Our study Community sample	Our study Hospital sample	Kar et al, 2003	Chandrasekaran et al 2001	Chand et al 2013	Murthy et al 2009
Family history	56%	62%	66.2%	67.1%	54%	42%

When treatment variables were compared with other published studies the duration of stay ranged from 10-14 days in the various studies, which again was similar to our study.

Table16:Duration Of Hospital Stay Compared to Other Studies

Variable	Our study	Kar et al, 2003	Chavan et al 2013	Murthy et al 2009
Duration of stay In days	14	14	10	14

In our study about half the patients had required detoxification with benzodiazepenes, and both chlodiazepoxide and lorazepam were used in both the groups. Using chlordiazepoxide in a camp setting where the liver function status of the patients may not be known could be potentially hazardous. But a study done (29) on 100 patients with alcohol dependence who needed detoxification, lorazepam was found to equally effective in alleviating withdrawal symptoms, when compared to traditional chlordiazepoxide.

Therefore lorazepam could be safely used in detoxifying patients in the camp setting.

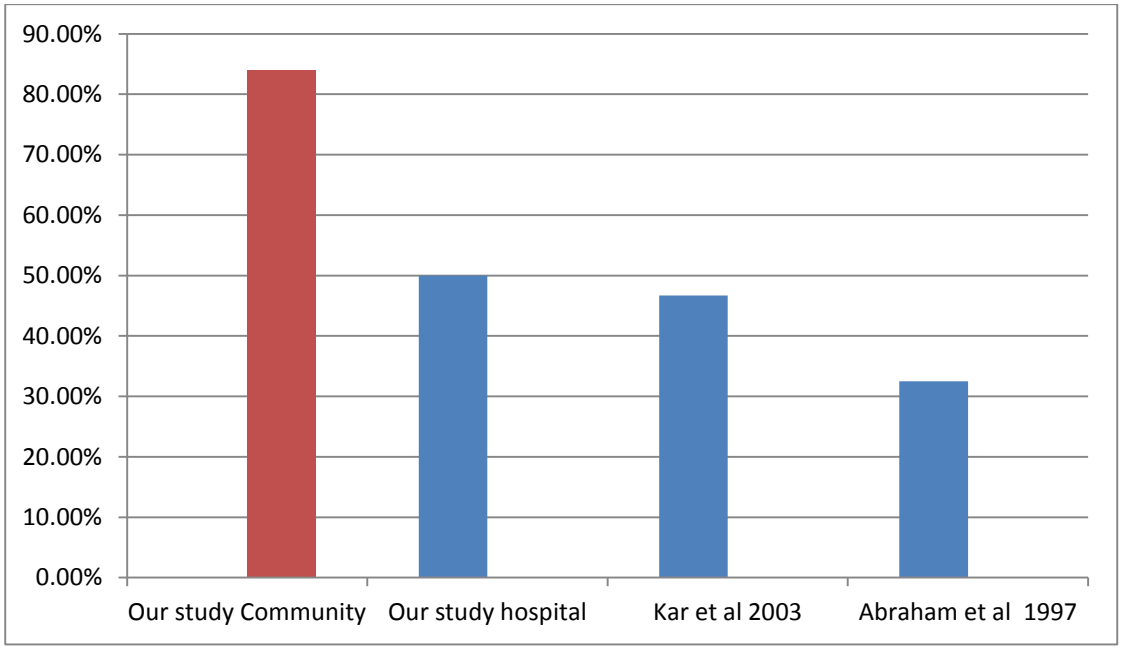
Treatment Outcomes:

Compared to other outcome studies, our community sample had an excellent rate and hospital sample had a better abstinent rate..

Table 17: Comparing Our Outcomes With Hospital Based Studies

Outcome	Our study community sample	Our study Hospital sample	Kar et al, 2003	Abraham et al 1997
Abstinence rate at 6months	84%	50%	46.7%	32.5%

Fig 16 Comparing Abstinent Rates With Other Hospital Based Studies



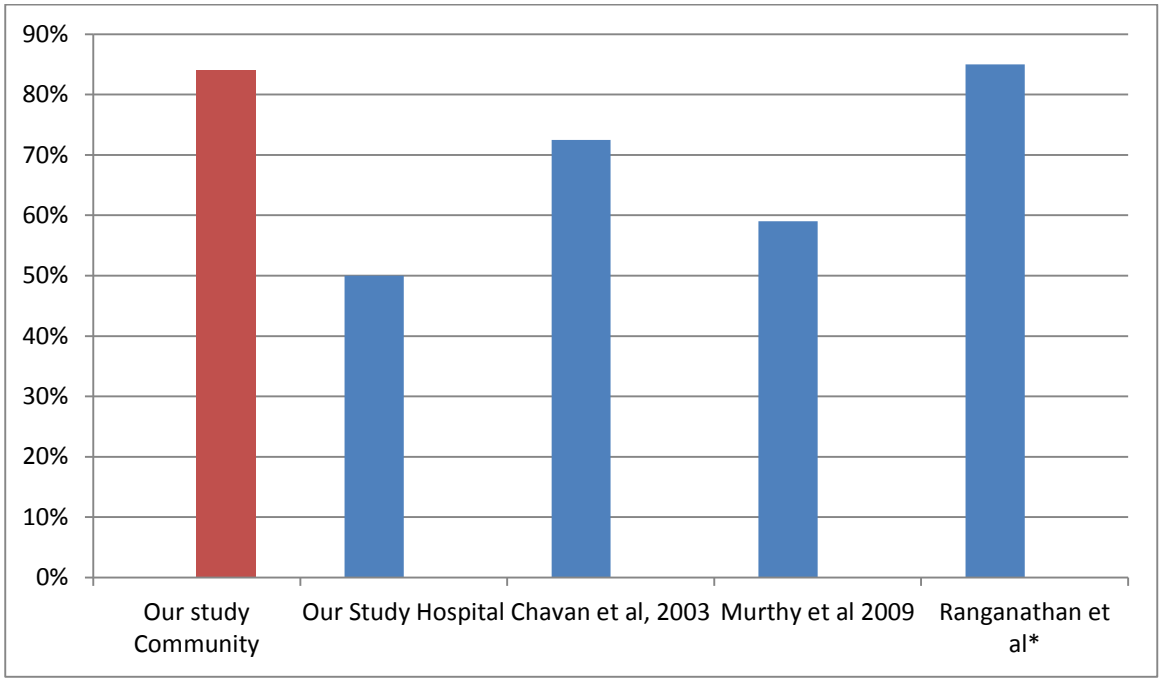
Community based studies had given improvement rates at the end of the study period, which included both patients who were abstinent and also had reduced substance use. To compare with these studies we had also analysed patient who had reduced drinking rates, that is patients who were abstinent and those who had occasional drinking.

Table 18 :Comparing Our Abstinent Rates With Community Based Studies

Outcome	**Our study community sample**	**Our study Hospital sample**	**Chavan et al 2003**	**Murthy et al 2009**	**Ranganathan et al 1994**
Abstinence rate at 6months	**84%**	**50%**	**72.5%**	**59%**	**85%***

*Outcomes not clearly defined

Fig17:Comparing Abstinent Rates With Other Community Based Studies



*Outcomes not clearly defined.

In the published community based studies, the sample was not homogenous, the methodology was not clearly described, standard scales were not used (20) and the outcomes were not clearly defined.(14)

Our study shows that it is feasible to provide effective de-addiction treatment at primary care level, which has better outcomes compared to those delivered at de-addiction centres in tertiary care centres. When compared to other community de-addiction studies, also our results fared much better.

Implications :

Substance use including alcohol is a significant health problem in our country. Recently there has been an alarming increase in prevalence of substance use, especially among women(1). Various measures have been suggested to tackle the alcohol burden in the community such as levying taxes, increasing the legal drinking age, limiting alcohol sales and even drastic measures such as prohibition, but much needs to be done at the ground level.

. Tackling the substance use disorders in general and alcohol dependence in particular needs a multipronged approach with specific programs tailored to deliver de-addiction services at primary, secondary, and tertiary levels of care, however to formulate such programs, there is disappointingly little research on substance use disorders in India.

Most of the available literature on outcome studies come from the West show that patients with alcohol dependence who undergo treatment eventually relapse, and it is prudent to view the disease as a chronic condition akin to medical illnesses like diabetes. Studies also underscore the importance of using community resources to have some kind of long term impact on this problem (26, 27). Other studies advocate maintaining contact with patients over many years and that would result in better long term outcomes.(30)

In a developing country such as ours where two thirds of the population live in rural areas (28) it is not feasible to deliver the traditional form of de-addiction given in tertiary care centres based mainly in urban areas. Some government funded centers do offer these services but the overall efficacy of these programmes is low (5).

With about 23,790 primary health centres in the country, there is already infrastructure in place to offer these services. Hence with proper training of health care workers, they could be transformed into centres offering detoxification, education and brief psychosocial interventions, which could change the way these disorders are perceived, reduce the stigma and pave the way for offering better care which is timely and thereby reducing the healthcare, socioeconomic and psychosocial burden of this debilitating disease.

Strengths And Limitations:

Strengths:

The strengths of our study are:

- It was a prospective study, and the patients were followed up for 6 months.
- Standard questionnaires and diagnostic tools were used.
- The sociodemographic variables of the patients were comparable to those from other studies, hence the results could be generalized.
- Outcomes of the study were clearly defined.
- Efforts were taken to contact patients who had lost follow up over phone and information about their drinking status was obtained from both the patient and spouse.

Limitations:

- Our main limitation was the small sample size, due to constraint of resources at the PHC, only 25 patients could be included in the community sample.
- Blinding of assessment could not be done. Hence there is risk of investigator bias, however the study protocols were adhered to strictly in order to minimise this.

- Even though there was a common alcohol de-addiction treatment model, variation in the clinician approach and treatment could also influence the outcome; this aspect was not studied by us.

Conclusion:

The abstinence rate in the community based de-addiction sample was better than the traditional de-addiction treatment offered in the hospital. Also the drug compliance, duration of follow up and number of group visits were significantly better in the community sample. There is already evidence to suggest that more number of contacts with a health care provider improved long term outcomes in patients with substance use disorders

Thus we conclude that there are enough positives in our study to warrant further research with more number of patients.

This modality of delivering de-addiction services could be the answer for the growing problem of substance use in the country.

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ஒப்புதல் படிவம்

தேதி:

டாக்டர். ஷியாம் ரா. பா. சு. ஆகிய நான். பி.எஸ்.ஜி மருத்துவக் கல்லூரியின் மனநல மருத்துவத் துறையின் கீழ், மது அடிமைத் தனத்தில் இருந்து விடுபட சமூக மருத்துவ ஆலோசனை வழங்குதல் தொடர்பான மருத்துவ ஆராய்ச்சி மேற்கொள்ள உள்ளேன்.

என் ஆய்வு வழிகாட்டி : டாக்டர். கோ. ரகுத்தமன். பேராசிரியர் மற்றும் துறைத் தலைவர்

ஆய்வு மேற்கொள்வதற்கான அடிப்படை :

பெருகி வரும் மதுப்பழக்கமும், மதுவிற்கு அடிமையான அனைவரும் மருத்துவமனைக்கு சென்று ஆலோசனை பெற இயலாத நிலைமை

ஆய்வின் நோக்கம் :

மது அடிமைத்தனத்தில் இருந்து விடுபட சிகிச்சை அளிப்பதில் மருத்துவ சிகிச்சையும் மருத்துவ ஆலோசனையும் முக்கிய அம்சமாகும்.. மது அடிமைத்தனத்தால் பாதிக்கப்பட்டவர்கள் மருத்துவமனையில் சிகிச்சை பெறுவதற்கு அனுகுவதில்லை இதே சிகிச்சையை சமூகத்தில் வழங்குவதால் பலன் அதிகமாக இருக்குமா என்பதை அறிவதே ஆய்வின் நோக்கம்

ஆய்வு மேற்கொள்ளும் இடம் :

வேடபட்டி ஆரம்ப சுகாதார மையம், பி.எஸ்.ஜி மருத்துவமனை, கோயம்புத்தூர்

ஆய்வின் பலன்கள் :

மது அருந்துவதால் ஏற்படும் தீய விளைவுகளையும் மது அருந்துவதை நிறுத்துவதால் ஏற்படும் நன்மைகளையும் சொல்வதன் மூலம் மதுவிற்கு அடிமை ஆனவர்களின் எண்ணிக்கையை குறைத்து அவர்களின் உடல் மற்றும் உள்ளம் சீரமைப்பு ஆவதற்கு உதவுதல்

இந்த ஆய்வில் கிடைக்கும் தகவல்கள் ஐந்து வருடங்கள் பாதுகாக்கப்படும். இவை வேறு எந்த ஆய்விற்கும் பயன்படுத்தப்பட மாட்டாது. ஏந்த நிலையிலும் உங்களைப் பற்றிய தகவல்கள் யாருக்கும் தெரிவிக்கப்படமாட்டாது. அவை இரகசியமாக வைக்கப்படும்.

இந்த ஆய்வில் பங்கேற்க ஒப்புக்கொள்ளுவதால் எந்த விதமான பலனும் உங்களுக்குக் கிடைக்காது.
எந்த நேரத்தில் வேண்டுமானாலும் ஆய்விலிருந்து விலகிக்கொள்ளும் உரிமை உங்களுக்கு உண்டு.

ஆய்விலிருந்து விலகிக்கொள்வதால் உங்களுக்கு அளிக்கப்படும் சிகிச்சையில் எந்த வித மாற்றமும் இருக்காது.

இந்த ஆராய்ச்சிக்காக உங்களிடம் சில கேள்விகள் கேட்கப்படும். மேலும் இந்த ஆய்வில் பங்கு கொள்வது உங்கள் சொந்த விருப்பம். இதில் எந்த விதக் கட்டாயமும் இல்லை. நீங்கள் விருப்பப்பட்டால் இந்த ஆய்வின் முடிவுகள் உங்களுக்குத் தெரியப்படுத்தப்படும்.

ஆய்வாளரின் கையொப்பம் :

தேதி :

ஆய்வுக்குட்படுபவரின் ஒப்புதல் :

நான் இந்த ஆராய்ச்சியின் நோக்கம் மற்றும் அதன் பயன்னாட்டினைப் பற்றி தெளிவாகவும். விளக்கமாகவும் தெரியப்படுத்தப்படடுள்ளேன். இந்த ஆராய்ச்சியில் பங்கு கொள்ளவும். இந்த ஆராய்ச்சியின் மருக்துவ ரீதியான குறிப்புகளை வரும் காலத்திலும் உபயோகபடபடுத்திக் கொள்ளவும் முழு மனதுடன் சம்மதிக்கிறேன். ஆராய்ச்சிகக்காக மருத்துவர் என்னிடம் தொலைபேசி. கைபேசி மூலம் பேசுவதற்கும் ஆலோசனை வழங்குவதற்கும் நான் சம்மதிக்கிறேன்.

ஆய்வுக்குட்படுபவரின் பெயர். முகவரி :

கையொப்பம் :

தேதி :

PSG Institute of Medical Science and Research, Coimbatore
Institutional Human Ethics Committee
INFORMED CONSENT FORMAT FOR RESEARCH PROJECTS

I , **Dr.R.P.S.Shyam**, am carrying out a study on the topic **Course and outcome of patients with Alcohol dependence syndrome following community de-addiction treatment and a hospital based de-addiction treatment -a comparative study** as part of my / our research project being carried out under the Department of PSYCHIATRY

My research guide is: Dr. G. Raghuthaman

The justification for this study is: Alcohol is causally related to a number of diseases. Also there are a lot of intangibles when it comes to alcohol problem, as it causes a lot of psychosocial impairment. The purpose of the study is to evaluate a deaddiction program run at the level of the community- whether it will have better outcomes, and to compare the same with the IP deaddiction services in a hospital setting.

The objectives of this study are:
To study the course and outcomes of patients with alcohol dependence syndrome who receive community de-addiction program, run by departments of Psychiatry (PSG Institute of Medical Sciences & Research) and compare them with patient who undergo de-addiction at PSG hospitals.

To look for socio-demographic or other variables which may predict the outcome

Sample size:

Study volunteers / participants are (specify population group & age group):Patients.Age group is 18 – 65 years

Location: Vedapatti RHC run by PSGIMS&R and PSG Hospitals

We request you to kindly cooperate with us in this study. We propose collect background information and other relevant details related to this study. We will be carrying out:

Initial interview (specify approximate duration):30-45 minutes.

Data collected will be stored for a period of fifteen years. We will / will not use the data as part of another study.

Health education sessions: Number of sessions: _____. Approximate **duration** of each session:

_____ minutes.

Clinical examination (Specify details and purpose): as part of the camp to look for any major co-morbidities needing hospitalized care(exclusion criteria)

Blood sample collection: Specify quantity of blood being drawn: _____ml.

Whether blood sample collection is part of routine procedure or for research (study) purpose: Routine procedure

1. Routine procedure 2. Research purpose

Specify **purpose**, discomfort likely to be felt and side effects, if any: _____

Whether blood sample collected will be stored after study period: Yes / No, it will be destroyed

Whether blood sample collected will be sold: Yes / No

Whether blood sample collected will be shared with persons from another institution: Yes / No

Medication given, if any, duration, side effects, purpose, benefits:

Whether medication given is part of routine procedure: Yes

Whether alternatives are available for medication given: No

Final interview (specify approximate duration):30-45 mts.

Benefits from this study: to evaluate the effectiveness of a community deaddiction program, and to see if can be a viable model for further studies. To see if there can be any predictors of outcome.

Risks involved by participating in this study: nil

How the **results** will be used:

If you are uncomfortable in answering any of our questions during the course of the interview / biological sample collection, **you have the right to withdraw from the interview / study at anytime.** You have the freedom to withdraw from the study at any point of time. Kindly be assured that your refusal to participate or withdrawal at any stage, if you so decide, will not result in any form of compromise or discrimination in the services offered nor would it attract any penalty. You will continue to have access to the regular services offered to a patient. You will **NOT** be paid any remuneration for the time you spend with us for this interview / study. The information provided by you will be kept in strict confidence. Under no circumstances shall we reveal the identity of the respondent or their families to anyone. The information that we collect shall be used for approved research purposes only. You will be informed about any significant new findings - including adverse events, if any, – whether directly related to you or to other participants of this study, developed during the course of this research which may relate to your willingness to continue participation.

Consent: The above information regarding the study, has been read by me/ read to me, and has been explained to me by the investigator/s. Having understood the same, I hereby give my consent to them to interview me. I am affixing my signature / left thumb impression to indicate my consent and willingness to participate in this study (i.e., willingly abide by the project requirements).

Signature / Left thumb impression of the Study Volunteer / Legal Representative:

Signature of the Interviewer with date: Witness:

Contact number of PI: 9566147375

Contact number of Ethics Committee Office: 0422 2570170 Extn.: 5818

Socio-demographic data

Name:

Address:

Phone no.: Spouse:

Age: Sex:

Education:

Marital Status:

Occupation:

No. of members in the family:

Total Monthly Income:

Age at first use of alcohol:

Age at daily drinking:

Family history of alcohol use:

Other substance use:

Withdrawal Symptoms:

Uncomlicated

Complicated ,if any

SEVERITY OF ALCOHOL DEPENDENCE QUESTITIONAIRE

பெயர் : வயது : தேதி :

கடந்த 6 மாதங்களில் மிக அதிகமாக அது அருந்தியதை நினைவு கூறவும்.

எப்பொழுது? மாதம் : வருடம் :

உங்களின் குடிப்பழக்கம் குறித்த பின்வரும் கேள்விகளுக்கு உங்கள் பதில்களை வட்டமிட்டு காட்டவும்.

மிக அதிகமாக மது அருந்தும் காலங்களில் :

1 மது அருந்திய அடுத்த நாள் நான் எழுந்திருக்கும் போது அதிகமாக வியர்வையை உணர்கிறேன்.

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

2 மது அருந்திய அடுத்த நாள் காலை எழுந்நவுடன் மன் கைகள் நடுங்குவதை உணர்கிறேன்.

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

3 மது அருந்திய அடுத்த நாள் மது அருந்தவில்லை எனில் எனது உடல் மிகத் தீவிரமாக நடுங்குவதை உணர்கிறேன்.

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

4 மது அருந்திய அடுத்த நாள் நான் எழும் போது முழுவதும் வியர்வையில் நனைந்திருக்கிறேன்.

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

5 மது அருந்திய அடுத்த நாள் காலையில் பெரும் பயத்துடன் எழுந்திருக்கிறேன்

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

6 மது அருந்திய அடுத்த நாள் காலையில் பிறரை சந்திக்கும் போது பயப்படுகிறேன்

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

7 மது அருந்திய அடுத்த நாள் காலையில் எழும் போது நம்பிக்கை இல்லாதது போல் உணர்கிறேன்

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

8 மது அருந்திய அடுத்த நாள் காலையில் எழுந்த பின் பயத்தை உணர்கிறேன்

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

9 மது அருந்திய அடுத்த நாள் மீண்டும் காலையில் மது அருந்த விரும்புகிறேன்

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

10 மது அருந்திய அடுத்த நாள் மீண்டும் மது அருந்தும் போது முதலில் சிறிது மதுவை மிக வேகமாக விழுங்குகிறேன்

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

11 மது அருந்திய அடுத்த நாள் நடுக்கத்தைக் குறைப்பதற்காக அதிக அளவு அருந்துகிறேன்

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

12 மது அருந்திய அடுத்த நாள் காலையில் எழும் போது மதுவின் மீது ஆர்வம் அதிகமாகிறது

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

13 நான் ஒரு நாளைக்கு ஒரு குவார்ட்டர் சாராயம் (1 ஔயின் அல.லது 7 பீர்) அதற்கு மேல் குடிக்கிறேன்

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

14 நான் ஒரு நாளைக்கு அரை பாட்டில் சாராயம் (2 பாட்டில் ஔயின் அல.லது 15 பீர்) அதற்கு மேல் குடிக்கிறேன்

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

15 நான் ஒரு நாளைக்கு ஒரு பாட்டில் சாராயம் (4 பாட்டில் ஔயின் அல.லது 30 பீர்) அதற்கு மேல் குடிக்கிறேன்

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

16 நான் ஒரு நாளைக்கு 2 பாட்டில் சாராயம் (8 பாட்டில் ஒயின் அல.லது 60 பீர்) அதற்கு மேல் குடிக்கிறேன்

எப்போதும் இல்லை எப்போதாவது அடிக்கடி எப்போதும்

பின் வரும் நிகழ்வுகளை கற்பனை செய்யவும்

1 நீங்கள் சில வாரங்கள் மது அருந்துவதை முற்றிலும் நிறுத்தி விட்டீர்கள்
2 அதற்கு அடுத்த 2 நாட்கள் மிக அதிகமாக மது அருந்துகிறீர்கள்
3 இரண்டு நாட்கள் கழந்தபின் காலையில் எப்படி உணர்வீர்கள்?

17 எனக்கு வியர்க்க ஆரம்பிக்கும்
ஒரு போதும் இல்லை கொஞ்சம் மிதமாக மிக அதிகமாக

18 எனது கைகள் நடுங்கும்
ஒரு போதும் இல்லை கொஞ்சம் மிதமாக மிக அதிகமாக

19 எனது உடல் நடுங்கும்
ஒரு போதும் இல்லை கொஞ்சம் மிதமாக மிக அதிகமாக

20 எனக்கு மதுவின் மீது தீவரம் அதிகரிக்கும்
ஒரு போதும் இல்லை கொஞ்சம் மிதமாக மிக அதிகமாக

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எப்பொழுதாவது கீழே சொன்ன மாதிரி உங்களுக்கு நடந்திருக்கிறதா?

				ஆம் எனில்		
		ஆம்	இல்லை	ஒரு முறை அல்லது சில முறை	வாரம் ஒரு முறை	தினமும்
1	குடித்து முடித்த பிறகு தலை பாரமாகவும், கஷ்டமாகவும் இருந்தது					
2	குடித்த பிறகு எனக்கு நானே மிகவும் வருத்தப்பட்டிருக்கிறேன்					
3	குடிப்பழக்கத்தினால் வேலைக்கு அல்லது பள்ளிக்கு போகாமல் இருந்திருக்கிறேன்.					
4	என்னுடைய குடும்பத்தினர்கள் அல்லது நண்பர்கள் என் குடிப்பழக்கத்தை பற்றி கவலைப்பட்டிருக்கிறார்கள் அல்லது புகார் சொல்லியிருக்கிறார்கள்.					
5	நான் பீர், ஒயின் போன்ற மதுவின் ருசியை அனுபவித்திருக்கிறேன்.					
6	என்னுடைய குடிப்பழக்கத்தினால் என் வேலையின் திறன் பாதிக்கப்பட்டிருக்கிறது.					
7	நல்ல பெற்றோர் ஆக இருக்கும் தகுதி குடிப்பழக்கத்தினால் பாதிக்கப்பட்டிருக்கிறது.					
8	குடித்த பிறகு எனக்கு தூக்க தொந்தரவு, தூக்கமின்மை, பயமுள்ள கனவு இருந்திருக்கிறது.					
9	நான் குடித்து விட்டு வண்டியை ஓட்டியிருக்கிறேன்					
10	மற்ற போதை மருந்துகளை பயன்படுத்துவதற்கு என்னுடைய குடிப்பழக்கம் காரணமாக இருந்திருக்கிறது.					
11	குடித்த பிறகு சோர்வும் வாந்தியும் எனக்கு இருந்திருக்கிறது.					
12	குடிப்பழக்கத்தினால் சந்தோசமின்மையாக இருக்கிறேன்.					
13	குடிப்பழக்கத்தினால் நான் சரியாக சாப்பிடுவதில்லை.					
14	குடிப்பழக்கத்தினால் (என்னிடமிருந்து) எதிர்பார்ப்புகளை நிறைவேற்ற இயலாமல் இருந்து இருக்கிறேன்.					

15	எனக்கு மன இறுக்கம் இல்லாமல் இருப்பதற்கு குடிப்பழக்கம் உதவியாய் இருந்தது.					
16	குடிப்பழக்கத்தினால் எனக்கு குற்ற உணர்வு அல்லது அவமானமாக இருக்கிறது.					
17	குடிக்கும் போது தலைகுனிவு, நெருடல் வருகிற மாதிரி பேசியிருக்கிறேன் அல்லது செய்திருக்கிறேன்.					
18	குடிக்கும் போது என்னுடைய குணாதிசயங்கள் மோசமான குணாதிசயங்களாக மாறியது.					
19	குடித்திருக்கும் போது நான் ஆபத்தான முட்டாள்தனமான முடிவுகளை எடுத்திருக்கிறேன்					
20	குடிப்பதனால் நான் பிரச்சினையில் சிக்கியிருக்கிறேன்					
21	நான் குடித்திருக்கும் போது அல்லது போதை பொருள் பயன்படுத்தும் போது மற்றவர்களை கடுமையாக திட்டியிருக்கிறேன்.					
22	குடிக்கும் போது நான் முன்யோசனை இல்லாமல் செயல்கள் செய்ததற்காக வருத்தப்பட்டு இருக்கிறேன்.					
23	குடித்திருக்கும் போது நான் கைகலப்பு சண்டைகளில் ஈடுபட்டிருக்கிறேன்.					
24	என் குடிப்பழக்கத்தினால் உடல் ஆரோக்கியம் பாதிக்கப்பட்டுவிட்டது.					
25	குடிப்பழக்கம் என் வாழ்க்கை பற்றிய ரொம்ப சரியான கண்ணோட்டம் பெறுவதற்கு உதவியாக இருந்தது.					
26	குடிப்பழக்கத்தினால் எனக்கு பணப்பிரச்சினை இருந்தது					
27	குடிப்பழக்கத்தினால் என்னுடைய காதல் அல்லது திருமண வாழ்க்கை பாதிக்கப்பட்டிருக்கிறது					
28	நான் குடிக்கும் போது அதிகம் புகை பிடிக்கிறேன்					
29	குடிப்பழக்கத்தினால் என்னுடைய உடல் தோற்றம் பாதிக்கப்பட்டுக் கொண்டு இருக்கிறது.					
30	குடிப்பழக்கத்தினால் என் குடும்பம் பாதித்து விட்டது.					
31	குடிப்பழக்கத்தினால் நண்பர்களின் உறவு, நெருக்கமான உறவுகள் பாதித்துவிட்டது.					
32	குடிப்பழக்கத்தினால் என்னுடைய உடல். எடை அதிகரித்துவிட்டது.					
33	குடிப்பழக்கத்தினால் என் உடலுறவு வாழ்க்கை பாதித்துவிட்டது					
34	குடிப்பழக்கத்தினால் என்னுடைய செயல்களிலும், பொழுதுபோக்கு விசயங்களிலும் ஆர்வத்தை இழந்து					

	விட்டேன்					
35	குடித்திருக்கும் போது என் சமூக வாழ்க்கை மிகவும் சந்தோசமாக இருந்தது.					
36	குடிப்பழக்கத்தினால் என்னுடைய ஆன்மீகம் மற்றும் ஒழுக்கமுடைய வாழ்க்கை பாதித்துவிட்டது					
37	குடிப்பழக்கம் இருப்பதால் நான் விரும்பிய வாழ்க்கை எனக்கு கிடைக்கவில்லை.					
38	என் மதுப்பழக்கம் என் தனிப்பட்ட வளர்ச்சியை பாதித்துள்ளது					
39	என் குடிப்பழக்கம் என் சமூக வாழ்க்கை, புகழ், மரியாதையை கெடுத்துவிட்டது.					
40	குடிப்பழக்கத்தினால் நான் நிறைய பணத்தை செலவழித்துவிட்டேன் அல்லது அதிகமான பணத்தை இழந்துவிட்டேன்					
41	குடித்துவிட்டு வண்டி ஓட்டும் போது நான் கைது செய்யப்பட்டிருக்கிறேன்					
42	குடிப்பழக்கத்தினால் எனக்கு சட்டப் பிரச்சினை ஏற்பட்டிருக்கிறது					
43	குடிப்பழக்கத்தினால் திருமணம் காதல் வாழ்க்கையை இழந்து இருக்கிறேன்					
44	குடிப்பழக்கத்தினால் நான் வேலையிலிருந்து அல்லது பள்ளிக்கு போகமுடியாமல் தற்காலிக பணிநீக்கம், நிரந்தர பணி நீக்கம் ஏற்பட்டிருக்கிறது.					
45	நான் எந்த பிரச்சினையும் இல்லாமல் மது அருந்தினேன்					
46	குடிப்பழக்கத்தினால் நான் நண்பர்களை இழந்து இருக்கிறேன்					
47	நான் குடித்திருக்கும் போது எனக்கு விபத்து ஏற்பட்டு இருக்கிறது.					
48	நான் போதையில் இருக்கும் போது உடலில் காயம் அல்லது தீக் காயம் ஏற்ப்பட்டுள்ளது					
49	நான் போதையில் இருக்கும் போது என்னால் மற்றவர்களுக்கு காயம் ஏற்பட்டிருக்கிறது.					
50	நான் குடித்து விட்டு போதையில் பொருட்களை உடைத்து இருக்கிறேன்					

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எப்பொழுதாவது கீழே சொன்ன மாதிரி உங்களுக்கு நடந்திருக்கிறதா?

				ஆம் எனில்		
		ஆம்	இல்லை	ஒரு முறை அல்லது சில முறை	வாரம் ஒரு முறை	தினமும்
1	குடித்து முடித்த பிறகு அவருக்கு தலை பாரமாகவும், கஷ்டமாகவும் இருந்தது					
2	குடிப்பழக்கத்தினால் வேலைக்கு அல்லது பள்ளிக்கு போகாமல் இருந்திருக்கிறார்					
3	என்னுடைய குடும்பத்தினர்கள் அல்லது நண்பர்கள் அவருடைய குடிப்பழக்கத்தை பற்றி கவலைப்பட்டிருக்கிறார்கள் அல்லது புகார் சொல்லியிருக்கிறார்கள்.					
4	அவருடைய குடிப்பழக்கத்தினால் அவருடைய வேலையின் திறன் பாதிக்கப்பட்டிருக்கிறது.					
5	நல்ல பெற்றோர் ஆக இருக்கும் தகுதி குடிப்பழக்கத்தினால் பாதிக்கப்பட்டிருக்கிறது.					
6	அவர் குடித்து விட்டு வண்டியை ஓட்டியிருக்கிறார்					
7	குடித்த பிறகு சோர்வும் வாந்தியும் அவருக்கு இருந்திருக்கிறது.					
8	குடிப்பழக்கத்தினால் அவர் சரியாக சாப்பிடுவதில்லை.					
9	குடிப்பழக்கத்தினால் (என்னிடமிருந்து) எதிர்பார்ப்புகளை நிறைவேற்ற இயலாமல் இருந்து இருக்கிறேன்.					
10	குடிக்கும் போது தலைகுனிவு, நெருடல் வருகிற மாதிரி பேசியிருக்கிறார் அல்லது செய்திருக்கிறார்.					
11	குடிக்கும் போது அவருடைய குணாதிசயங்கள் மோசமான குணாதிசயங்களாக மாறியது.					
12	குடித்திருக்கும் போது அவர் ஆபத்தான முட்டாள்தனமான முடிவுகளை எடுத்திருக்கிறார்					
13	குடிப்பதனால் அவர் பிரச்சினையில் சிக்கியிருக்கிறார்					
14	அவர் குடித்திருக்கும் போது அல்லது போதை பொருள் பயன்படுத்தும் போது மற்றவர்களை கடுமையாக திட்டியிருக்கிறார்					
15	குடிக்கும் போது அவர் முன்யோசனை இல்லாமல் செயல்கள் செய்ததற்காக					

	வருத்தப்பட்டு இருக்கிறார்					
16	குடித்திருக்கும் போது அவர் கைகலப்பு சண்டைகளில் ஈடுபட்டிருக்கிறார்					
17	அவருடைய குடிப்பழக்கத்தினால் உடல் ஆரோக்கியம் பாதிக்கப்பட்டுவிட்டது.					
18	குடிப்பழக்கத்தினால் எனக்கு பணப்பிரச்சினை இருந்தது					
19	குடிப்பழக்கத்தினால் அவருடைய காதல் அல்லது திருமண வாழ்க்கை பாதிக்கப்பட்டிருக்கிறது					
20	குடிப்பழக்கத்தினால் அவருடைய உடல் தோற்றம் பாதிக்கப்பட்டுக் கொண்டு இருக்கிறது.					
21	குடிப்பழக்கத்தினால் குடும்பம் பாதித்து விட்டது.					
22	குடிப்பழக்கத்தினால் நண்பர்களின் உறவு, நெருக்கமான உறவுகள் பாதித்துவிட்டது.					
23	குடிப்பழக்கத்தினால் அவருடைய உடல். எடை அதிகரித்துவிட்டது.					
24	குடிப்பழக்கத்தினால் அவருடைய செயல்களிலும், பொழுதுபோக்கு விசயங்களிலும் ஆர்வத்தை இழந்து விட்டார்					
25	அவருடைய குடிப்பழக்கம் என் சமூக வாழ்க்கை, புகழ், மரியாதையை கெடுத்துவிட்டது.					
26	குடிப்பழக்கத்தினால் அவர் நிறைய பணத்தை செலவழித்துவிட்டார் அல்லது அதிகமான பணத்தை இழந்துவிட்டார்					
27	குடித்துவிட்டு வண்டி ஓட்டும் போது அவர் கைது செய்யப்பட்டிருக்கிறார்					
28	குடிப்பழக்கத்தினால் அவருக்கு சட்டப் பிரச்சினை ஏற்பட்டிருக்கிறது					
29	குடிப்பழக்கத்தினால் திருமணம் காதல் வாழ்க்கையை இழந்து இருக்கிறார்					
30	குடிப்பழக்கத்தினால் அவர் வேலையிலிருந்து அல்லது பள்ளிக்கு போகமுடியாமல் தற்காலிக பணிநீக்கம், நிரந்தர பணி நீக்கம் ஏற்பட்டிருக்கிறது.					
31	குடிப்பழக்கத்தினால் அவர் நண்பர்களை இழந்து இருக்கிறார்					
32	அவர் குடித்திருக்கும் போது அவருக்கு விபத்து ஏற்பட்டு இருக்கிறது.					
33	அவர் போதையில் இருக்கும் போது உடலில் காயம் அல்லது தீக் காயம் ஏற்ப்பட்டுள்ளது					
34	அவர் குடித்து விட்டு போதையில் பொருட்களை உடைத்து இருக்கிறார்					

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ஓவ்வொரு கேள்விக்கும் கீழே உள்ள ஐந்து பதில்களில் ஒன்றை வட்டமிடவும்

1 இந்த மையத்திற்கு வருவதற்கு உண்டாண காரணம் எதுவும் எனக்கு இல்லாததால். இங்கு தங்கி இருக்கும் நேரம் வீணானது

1	தீவிர உடன்பாட்டில் இல்லை	2	உடன்பாடு இல்லை
3	முடிவு செய்ய முடியவில்லை	4	உடன்படுகிறேன்
5	முழுமையாக உடன்படுகிறேன்		

2 எனக்கு மனரீதியாகவும் உணர்வு ரீதியாகவும் மீண்டும் பிரச்சினைகள் உண்டாகாமல் தடுப்பதற்காக இந்த மையத்தில் இருப்பதாக கருதுகிறேன்.

1	தீவிர உடன்பாட்டில் இல்லை	2	உடன்பாடு இல்லை
3	முடிவு செய்ய முடியவில்லை	4	உடன்படுகிறேன்
5	முழுமையாக உடன்படுகிறேன்		

3 என்னிடம் தவறுகள் இருக்கலாம் என்று கருதினாலும் நான் மாற வேண்டியது ஒன்றுமில்லை.

1	தீவிர உடன்பாட்டில் இல்லை	2	உடன்பாடு இல்லை
3	முடிவு செய்ய முடியவில்லை	4	உடன்படுகிறேன்
5	முழுமையாக உடன்படுகிறேன்		

4 நான் மாறுவதற்காக மிக கடினமாக முயற்சி செய்கிறேன்

1	தீவிர உடன்பாட்டில் இல்லை	2	உடன்பாடு இல்லை
3	முடிவு செய்ய முடியவில்லை	4	உடன்படுகிறேன்
5	முழுமையாக உடன்படுகிறேன்		

5 எனக்கு மனரீதியாகவும் உணர்வு ரீதியாகவும் பிரச்சினைகள் உண்டு என்றும் அதைப்பற்றி முழு ஆய்வு தேவை என்றும் உணர்கிறேன்

1	தீவிர உடன்பாட்டில் இல்லை	2	உடன்பாடு இல்லை
3	முடிவு செய்ய முடியவில்லை	4	உடன்படுகிறேன்
5	முழுமையாக உடன்படுகிறேன்		

6 நான் என்னை உணர்வதற்கு துணை செய்யும் என்று நம்புகிறேன்

1	தீவிர உடன்பாட்டில் இல்லை	2	உடன்பாடு இல்லை
3	முடிவு செய்ய முடியவில்லை	4	உடன்படுகிறேன்
5	முழுமையாக உடன்படுகிறேன்		

7 நான் மனரீதியாகவும உணர்வு ரீதியாகவும் இருக்கும் பிரச்சினைகளுக்கு தீர்வு காணும் போது அப்பிரச்சினையில் இருந்து விடுபட்டு விட்டதாக கருதினாலும். அந்த பிரச்சினையிலேயே மீண்டும் சிக்கி தவிக்கிறேன்

1	தீவிர உடன்பாட்டில் இல்லை	2	உடன்பாடு இல்லை
3	முடிவு செய்ய முடியவில்லை	4	உடன்படுகிறேன்
5	முழுமையாக உடன்படுகிறேன்		

8 இந்த மையம் எனக்கு உதவி செய்யும் என்று உணருகிறேன்

1	தீவிர உடன்பாட்டில் இல்லை	2	உடன்பாடு இல்லை
3	முடிவு செய்ய முடியவில்லை	4	உடன்படுகிறேன்
5	முழுமையாக உடன்படுகிறேன்		

9 இந்த பிரச்சினைகளின் ஒரு பகுதிக்கு நான் காரணமாக இருக்கலாம் என்றாலும். நான் அப்படி சிந்திக்கவில்லை.

1	தீவிர உடன்பாட்டில் இல்லை	2	உடன்பாடு இல்லை
3	முடிவு செய்ய முடியவில்லை	4	உடன்படுகிறேன்
5	முழுமையாக உடன்படுகிறேன்		

10 மாறுவதைப் பற்றி யாரும் பேசுவது சுலபம் ஆயினும் மாற வேண்டும் என்பதற்காக சிலவற்றை நான் செய்து கொண்டு இருக்கிறேன்

1	தீவிர உடன்பாட்டில் இல்லை	2	உடன்பாடு இல்லை
3	முடிவு செய்ய முடியவில்லை	4	உடன்படுகிறேன்
5	முழுமையாக உடன்படுகிறேன்		

11 மனரீதியாகவும உணர்வு ரீதியாகவும் ஏற்பட்ட பிரச்சினைகளில் இருந்து விடுபட்டதாக கருதிய நேரத்தில் அந்தப் பிரச்சினைகளில் மீண்டும் சிக்கி விடுவேன் என்று நினைக்கும் போது வாழ்க்கை மீது வெறுப்பு தோன்றுகிறது.

1	தீவிர உடன்பாட்டில் இல்லை	2	உடன்பாடு இல்லை
3	முடிவு செய்ய முடியவில்லை	4	உடன்படுகிறேன்
5	முழுமையாக உடன்படுகிறேன்		

12 மனரீதியாகவும உணர்வு ரீதியாகவும் ஏற்படும் பிரச்சினைகளில் இருந்து விடுபட நான் மிகவும் தீவிரமாக முயற்சி செய்கிறேன்.

1	தீவிர உடன்பாட்டில் இல்லை	2	உடன்பாடு இல்லை
3	முடிவு செய்ய முடியவில்லை	4	உடன்படுகிறேன்
5	முழுமையாக உடன்படுகிறேன்		